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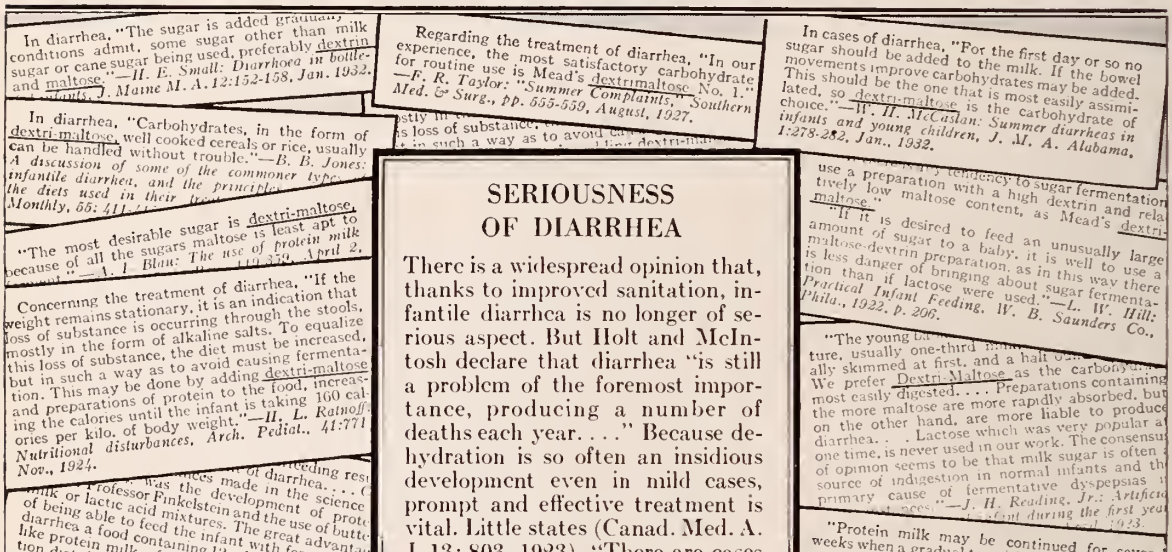
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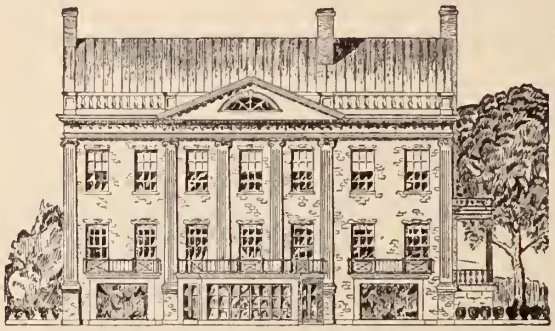
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In Memoriam

The Connecticut State Medical Society affectionately dedicates the first issue of its Journal to the late James Tate Mason, M.D., President of the American Medical Association.



J. TATE MASON

JOURNAL *of*

The Connecticut State Medical Society

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Editor, STANLEY B. WELD, M.D., - - - - - - - - 179 Allyn Street, Hartford, Connecticut

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Medical Expert Testimony

DR. THOMAS P. MURDOCK in his retiring address in May as President of our State Medical Society has issued a challenge to the profession in Connecticut. Who among us would not rejoice in seeing cause for criticism of existing conditions removed from our own door? Why should members of our profession be willing to appear as experts for either side in a trial? Why should lawyers employ these same doctors? Why should members of our profession be guilty of giving such testimony in court that they would not dare to give in a scientific paper before their own or any other medical society? How long will there be a primary interest in the expected fee?

It is indeed true that medicine is not an exact science and each expert testifying has a right to his own opinion. But Doctor Murdock is right when he reminds us that medical expert testimony is a specialty requiring special training just as much as any other branch of medicine. The witness stand is not a proper place for the amateur or the unprepared. The capacity to be classed as an expert, we are told, may be obtained by special training or experience, or by both. As Doctor Murdock has reminded us, the methods for obtaining this capacity may be by particularly prearranged training prior to entrance into his special field, or by occupational work which followed some form of previous training.

Looking out upon our sister states, we find an improved method operating in Rhode Island, Michigan, Washington and Louisiana. Massachusetts has a system, not yet adequately tested, whereby the decision in criminal cases with a plea of insanity is turned over to a commission of alienists appointed by the State. This should protect the profession from embarrassment where there is disagreement in borderline cases, and it should also defeat the unethical alienist whose opinion is influenced by whoever pays his fee.

It has been obvious for several years that more co-operation between the bar and the medical profession is desirable, at least, if not necessary — in Connecticut. Doctor Murdock proposes that our profession get its house in order, and

that we face this problem first in our own State Medical Society; that the Council, or a committee appointed by the Council, initiate, sponsor and endorse suitable legislation covering the question of expert medical testimony; and, to quote Doctor Murdock, that "this legislation be based wholly and entirely on the fact that this society shall submit to His Excellency, the Governor, the names of a group of doctors covering all of the specialties in medicine." The Governor shall then be empowered to name from this list of specialists a desired number of medical commissioners or referees. A commissioner or referee so named shall be appointed by the court to take testimony of medical experts, subject to examination and cross-examination. This commissioner, or referee, shall then report to the court his findings as to the medical testimony, and his report shall be read as evidence to the jury. This is the first constructive plan to be offered in this State. As has been already stated by the press, if legally practical, it deserves at least a trial in the interests, not only of the medical profession, but of justice.

——☆☆☆——

Social Security in Connecticut

The Committee on Public Health is to be congratulated on its report made through its Chairman, Joseph I. Linde, M.D., and appearing in this issue of the Journal. One of the goals toward which the recent Federal legislation on Social Security expended itself was the improvement of the public health work throughout our nation. The Act, as passed, authorizes the Federal Government to spend $10,000,000 a year in this work. Of this amount $2,000,000 is to be spent by the United States Public Health Service. This sum is believed by experts to be inadequate to accomplish all that needs to be done. The remaining $8,000,000 is allocated to preventative work. It is of more than passing interest to note that of the 3,000 counties in the United States only 528 have a full time health supervisor, and of these only 21% had a staff and were providing service considered adequate in 1933. Assistance to the sick is to be given only to young children and mothers. States to receive Federal aid must have an approved plan, and must set up a special health agency. Three million dollars a year is to be spent for the care of crippled children, each state contributing money and conforming to the requirements for administration of the program.

Connecticut, through its State Department of Health and State Medical Society, has a plan, and already Federal funds have begun to come in for this work. Windham County is the field chosen for a maternal welfare program. The child health program is to be increased. A service for crippled children will attempt to locate such not now under treatment, and arrange for their care.

Whether or not one is in sympathy with Social Security legislation as it now stands, it must appeal to the careful student as a reform not unworthy of support merely because incomplete. The caustic criticisms levelled at such leaders as Drs. Hugh Cabot, Michael Davis and Nathan Sinai seem premature if not unjust. Underlying the so-called "full steam" of these men there can be only the good of the people at heart and a desire to protect the individual against hazards to his personal economic security. Caution is wise, but we must have leaders to point the way, and not all be obstructionists.

——☆☆——

The Journal of The Connecticut State Medical Society, the official publication of your Society, is made possible in part by reason of the cooperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

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The Twelfth Clinical Congress

Elsewhere in this issue of the Journal may be found the complete program of the Clinical Congress to be held in New Haven, September 22, 23, and 24, 1936. After carefully reading through the program it would seem that the old and oft-heard criticism, "There is nothing there of interest to me," could hardly be tenable.

The history of the Connecticut Clinical Congress has been a varied one. Conceived in that post-bellum period when there was an eagerness to learn, it suffered the vicissitudes of the depression, and but a short time ago seemed on the point of breathing its last. There existed an underlying enthusiasm injected, as it were, by an ever increasing number of visitors from neighboring states — and some not so neighboring, either — and a fundamental conviction in the minds of a certain few of the faithful which made for tenacity and for a faith in the future. By a simple rearrangement of the cards, new life burst forth. The registration or 1935 broke all previous records.

In the proposed program before you there are several changes worthy of note. Bedside clinics; a symposium on each of several groups of subjects; the evenings given over to the various specialty sections instead of to visiting speakers on one or two general subjects of more or less interest. We commend the Congress to you. It is part of your Society's efforts to give you some post-graduate study each year. The Committee desires that you register early, thereby signifying your interest and materially assisting it in the task at hand.

——☆☆☆——

Special Notice

The special automobile emblem for the members of the Society is now in the process of production. It will be the official American Medical Association emblem inscribed around the margin CONNECTICUT STATE MEDICAL SOCIETY. These emblems will be available for distribution shortly. They are two dollars, and if you will direct your order, enclosing cheque, one or more of the emblems will be delivered to you as soon as they are received from the maker. Contact is being made with the chiefs of police in various towns and cities, and the state police, calling attention to the fact that these emblems are to be used by members of the State Society; and although it does not seem advisable to ask for any special privileges for our members, it is probable that cars bearing the official emblem will receive some consideration. —Creighton Barker, Administrative Secretary.

——☆☆——

It was voted that the paper read before the Litchfield County Association by Dr. Steiner at the Annual Meeting in April should be printed and distributed to the members.

The State Office

The central office of The Connecticut State Medical Society was opened early in June in accordance with instructions received from The House of Delegates. It is located at 258 Church Street, New Haven; the telephone number is 5-0249. Miss Margaret Capello is in charge of the office, and it is the desire of the Secretary of Staff to be of the greatest possible service to the Society. The office is available for committee meetings and conferences, and is equipped to do mimeographing and mailing for any of the State or County committees. As time goes on I am hopeful that opportunities for increased usefulness will be presented.

——☆☆——

Have you read "A Review of Medical Legislation in Connecticut from 1911 to 1935," by Henry N. Costello, M. D., appearing in The New England Journal of Medicine for July 16, 1936? If you have not read this comprehensive and enlightening review get a copy of The New England Journal today and become familiar with medical legislative affairs in your own State.

The President's Message

Daniel C. Patterson, M. D., Bridgeport

THE introduction of the Journal to the Connecticut State Medical Society's activities should prove a very welcome feature to our members, and the thanks of the Society are due to the Editor and to those responsible for its accomplishment. It will enable the members to keep in close touch with the work of the Society, as it will now be possible to have the proceedings and papers of the meetings in a comparatively short time following the assemblies. I believe the new arrangement of material will meet with general approval.

It is difficult to find time to read all the medical journals that come to one's desk, in fact, it is quite impossible to do so; however, the time spent in searching the journals for information pays big dividends.

It seems to me the best solution is to get at them as soon as possible and make this a habit. At times one glance at the table of contents is all that is necessary. The journal that is put aside is soon forgotten.

The medical profession has suffered a real loss in the death of James Tate Mason, President of the American Medical Association. He was a surgeon of marked ability, and one of the most genial and friendly of men. He will be affectionately remembered by a host of friends throughout the country. Doctor Mason combined in rare form the science and art of medicine, the possession of knowledge, and the ability to use it. His accomplishments emphasize the possibilities under the American system of medical practice to those who will make that extra effort.

To his bereaved family we extend the deepest sympathy of our State Association, and in admiration dedicate this first number of our journal to his memory.



Message of Chairman of Council

James Douglas Gold, M. D., Bridgeport

AS CHAIRMAN of the Council I send greetings to the members of the Connecticut State Medical Society, in this our first issue of the quarterly journal.

Most of you know we are starting this year with a new Secretaries' plan; one of the innovations is the editing of this quarterly journal.

Let us all put the best we have behind this venture, give all the assistance we can, having the well-being of our brother practitioners at heart, and so make the journal worthy of the efforts spent in its compilation, showing to the profession of the State that the Society is alive. In so doing we shall further the efforts of the medical profession in carrying on as in the past, always unselfishly having in mind the good of one's neighbor and the health and happiness of mankind. There are sections of the State where members of your Society are spending hours of time studying the economic problems which confront them in their own locality, and some sound conclusions must result from these investigations.

I solicit your indulgence and co-operation in this forward step of the Society, for our own satisfaction and the benefits which must result for our fellowmen.



DANIEL C. PATTERSON

President of The Connecticut State Medical Society

DANIEL CLEVELAND PATTERSON, M.D.

President Connecticut State Medical Society, 1936 —

Graduate of College of Physicians and Surgeons, Baltimore, Maryland, 1906.

President, Fairfield County Medical Association, 1930.

Attending Surgeon, Bridgeport Hospital, Bridgeport, Connecticut.

Member of American College of Surgeons and New England Surgical Society.

Medical Expert Testimony

By Thomas P. Murdock, M. D., Meriden
President, Connecticut State Medical Society, 1935-36*

THE question of medical expert testimony at one time or another has confronted the citizens of the various states. At the present time, in Connecticut, the subject seems to be a compelling one. Most medical men with whom I have talked regarding this subject believe that it is of sufficient importance to warrant action by this society. All of the lawyers whom I have heard discuss this subject have severely arraigned the doctors and the medical societies for permitting the condition to exist. Lay people in general seem to have very little respect for medical expert testimony or for the medical expert.

Wigmore[1] describing expert testimony states, "That sort of capacity which involves not the organic powers, moral and mental, requisite for all testimony, nor yet the emotional power of unbiased observation and statement, but the skill to acquire accurate conceptions may be termed Experiential Capacity. The person possessing it is commonly called an expert. This capacity may be obtained by special training or experience, or by both."

It is, in every case, a relative one. That is, relative to the subject, about which the expert is to testify. He may be sufficiently skilled in one subject, and totally unskilled in another. He may for example, be competent to testify that the deceased was asphyxiated, but not competent to say whether or not it was coal-gas or water-gas which caused death. He may be competent to say that the instrument causing death was sharp, but incompetent to say that the stains on the instrument were human blood.

The methods for obtaining this capacity may be by particularly prearranged training prior to entrance into his special field, or by occupational work which followed some form of previous training. Many famous experts have had very ordinary training prior to gaining experience in this work by occupation. Sometimes one of these methods shades into the other. Either is acceptable.

The calling of skilled medical men to the aid of the court was first recognized in 1345[2] when the court called upon surgeons to determine whether or not the question involved was one for courts or surgeons to determine.

The first recorded expert testimony as such, was in 1620[2] in the case of Alsop vs. Kowheel. This was a case questioning the paternity of a newly born child. In this case a medical expert testified that should a child be born forty weeks and nine days after the death of the husband, the husband might well have been the father of the child.

Mental experts apparently came into being about 1723[3]. In the early days in England the question of criminal responsibility was mitigated somewhat by the question of insanity. Prior to 1723 the two kinds of insanity recognized as defenses by the court were idiocy and lunacy. Then came what were called partial and total insanity. This of course closed the gateway to punishment almost entirely. In each case it was established that the partial insanity related directly to the crime involved. In 1780[3] an attempt was made to change this principle in the trial of Hadfield for shooting at the King in Drury Lane Theatre. The attorney general who prosecuted insisted that to establish a defense of insanity there must be a total deprivation of memory and understanding. It seems to be the impression of historians that in the famous Bellingham case in 1812 the pendulum swung way over to the side of the prosecution. Bellingham was charged with the murder of Spencer Percival. It seems to have been proven that Bellingham was wholly incapable of caring for his own affairs and was subject to definite delusions. Despite this he was convicted because of his supposed knowledge of the difference between right and wrong. In 1843[3] a great change was made in the previous uncertain standing of the defense of insanity. Mr. Drummond was shot by McNaughton. McNaughton claimed insanity as a defense since he was under the delusion that Drummond was one of a number of persons who were following him everywhere. It

*Delivered at Annual Meeting of The Connecticut State Medical Society, May 21, 1936.

was disclosed that he was able to carry on business and showed no obvious symptoms of insanity in his ordinary conduct. He was acquitted and thereupon the House of Lords propounded to several judges a questionnaire covering the law of insanity. As the result of this investigation it was finally decided: "To establish a defense on the ground of insanity, it must be clearly proved that at the time of committing the act, the person accused was laboring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong." In general this is the law today in this country with some modifications in some of the states.

The first recorded case covering the question of expert testimony in Connecticut was reviewed by the Supreme Court in this state in 1812. This was the case of John Grannis and Martha Grannis his wife, against Pierre E. Branden. Peculiarly enough, this was also a malpractice suit and, I believe, also the first reported malpractice suit presented to the Supreme Court of this state. In this case the court found for the plaintiffs against the doctor defendant. The complete report of the case might be of interest to you, and I am outlining it for you:—

JOHN GRANNIS AND MARTHA GRANNIS HIS WIFE, AGAINST PIERRE E. BRADEN.

Motion for new trial

This was an action on the case. It was alleged in the declaration, that for more than six years previous to the 29th day of March 1810, the defendant publicly professed and pursued the practice of physic, surgery and midwifery, in all their different branches; and professed and claimed to possess, full and perfect skill, knowledge and science therein; that on the day and year before mentioned, while the defendant was still pursuing and exercising his profession as above stated, the plaintiffs applied to the defendant and requested him for a reasonable compensation, to deliver said Martha of a child, with which she was then in travail; and that the defendant, in consideration of a reasonable compensation to be paid to him there, undertook to deliver said Martha of the child, in a proper, careful and skilful manner. It was then averred that the defendant, ignorantly, unskilfully and negligently, omitted to deliver said Martha, from the 29th to the 31st day of March, contrary to the well known rules of practice in such cases; that by reason of such omission, and also by reason of his ignorance, carelessness, wickedness and want of skill, in attempting to deliver the child, the said Martha suffered great and unnecessary pain, was exposed to the most imminent danger of losing her life, lost her health, and received lasting and irreparable injuries and wounds; to their damage 5000 dollars etc.

On the trial before the Superior Court, upon the plea of not guilty, the jury found a verdict for the plaintiffs.

In the course of the trial, the plaintiffs offered to prove, by the testimony of Dr. Cornwall and others, that the defendant, while attempting to deliver the child, made an incision on its head with a pair of scissors, or some other instrument, and therewith at the time, cut, injured and wounded the mother; and also, that the defendant, for bad management and want of skill, caused a lasting and irreparable injury to the internal parts of the mother, by the violent, unusual, and unwarrantable application of his finger to such parts. The defendant objected to this evidence, on the ground that the facts above specified, were not alleged in the declaration. But the court overruled the objection, and admitted the evidence.

In the further progress of the trial, the defendant proved by the testimony of the sundry witnesses, that he sustained the reputation of a skilful physician, and that such was his general character; whereupon, the plaintiffs moved to introduce evidence to show, that the defendant, previous to his undertaking the practice of physic, surgery and midwifery, had not been educated or instructed with a view to the practice of such professions; but that he had been employed altogether, in the business of a merchant or grocer, a dancing and fencing master, etc., to the admission of which evidence, the defendant objected; but it was permitted by the court to go to jury.

The plaintiffs also offered evidence to prove, that shortly after the attempt to deliver the child was made, the defendant declared, that said Martha was infected with the venereal disease, and that this was the reason why the delivery was attended with so much difficulty. The plaintiffs, at the same time, proposed to accompany this evidence with other proof, to show that said Martha was not infected with the venereal disease; and thereby to evince, that the defendant treated his patient unskilfully, and through ignorance or negligence in his profession, did not understand her case. This evidence was suffered to go to the jury, but the court, upon its admission, informed the jury that such evidence was not admitted for the purpose of aggravating the damages on account of the slanderous declaration of the defendant, but merely to show the ignorance, and unskilfulness of the defendant in the performance of his professional duty.

The defendant, in support of his professional character, offered to introduce the testimony of Dr. Todd, a skilful and eminent physician, to show that the witness had been called with the defendant, to visit a certain patient, and that the defendant's prescriptions and advice in that particular case, were prudent and correct. This evidence was objected to, by the plaintiffs, and was by the court rejected.

I am of the opinion, therefore, that a new trial ought not to be granted. In this opinion the other Judges severally concurred; excepting Ingersoll, Jr., who having been of counsel in the cause, did not Judge.

New trial not to be granted.

A very frequent criticism which one hears about medical experts is the fact that they will appear for either side. Is this an accurate observation? If this is so, then medicine must get its house in order and I can assure you that I will do all in my power to help make it orderly. However, one must not forget that this is a frequent criticism made by lawyers. Frequently lawyers will make this criticism about certain doctors, but on occasions will employ the same doctors.

A very famous trial lawyer has made the above statement to me and has further said that he would willingly support his statement. I know positively that he has employed the very medical experts he has criticised.

Medicine will not establish a negative defense by saying the same could be said of a great many lawyers, but will attempt, I am sure, to correct the situation as it should be corrected.

The lawyers and other critics of the medical expert must remember that medicine is not, and probably never will be an exact science and because of this there will be many and great differences of opinions. In this connection, the famous case reported by Bartlett[5] is worth reviewing. In California in 1899 a woman was injured in a railroad accident. She sued the railroad. Three medical experts appeared for the plaintiff and three for the defendant. All had examined the woman. All agreed that she had a uterine fibroid. The experts for the plaintiff testified that it was caused by the accident. The experts for the defendant testified that it was not. The jury found for the plaintiff. She was given a judgment of twenty thousand dollars. Ten days later she was delivered of a still born baby. It would be difficult or impossible to believe that there was any collusion here. Certainly the doctors appearing for the defendant would have been pleased to testify that this was a pregnancy if they had been able to discover it. I bring this out to emphasize again that medicine is not an exact science.

One rarely hears a criticism of religion in general, despite the many sects all arguing on the same fundamental subjects, and all with different approach and different ideas. Who would be bold enough, or foolish enough, to discredit all religion because of the difference of opinion regarding it.

If medicine were to be accepted as a finished and exact product, would not research, investigation and experimentation cease? It would be at a standstill and there would not be need for further study. Again who would be foolish enough to recommend the acceptance of such thought.

I have carefully reviewed the witness books in every court of superior jurisdiction in Connecticut covering the court year from September 1934 through June 1935. Some very interesting facts were disclosed. Doctors appeared 677 times. It is quite true, also, that the same doctors appeared several times. Peculiarly enough some doctors who have been thought to do a great deal of court work did not appear as frequently as was expected. In those courts where special records were kept as to appearance before the jury or the court without a jury, the former prevailed as many as nineteen times to one. In other words in one county, damage suits, in which medical experts testified, were tried before a jury 78 times to four suits, that were tried before the court. I could not help but get the impression that there was a definite and probably not a good and honorable reason for this. However, if fault is to be found with this procedure, and I personally believe that such should be the case, I believe the fault is with the lawyers. Perhaps they believe the juries will be more sympathetic than the courts. I have the feeling they believe their special witnesses will make a greater impression on the jury than on the court.

It has become necessary for the medical expert to have a rather large and general knowledge of the law. I believe it is as much a specialty as any of the more highly specialized branches of medicine. As one talks with trial lawyers he gets the impression that the lawyer believes that only truth is brought out on cross-examination. I doubt this very much.

The medical expert, either by special training or experience, has learned to fence with lawyers; he has learned to protect himself against blows below the belt. He has learned to defend himself against brow-beating, coarseness, inuendoes, vulgarities and insults. I firmly believe that I know many medical men of otherwise strong character, who rather than submit to this, would give the desired answer of the cross-examiner

and get it over with and out of the way. Is this truth that is brought out? I know many leaders in our profession who avoid going to court for this very reason.

Are the great insurers wholly free from blame in this situation? I doubt it very much. It seems to be the policy and practice of many representatives of insurance companies to attempt to reduce honest bills submitted by medical men. It seems to be the desire of these men to settle these cases always at a reduced rate. They call it "good business." Is it honest and ethical? They say the doctors pad their bills and therefore they must level themselves down to such practice. Could not an honorable settlement be offered without bartering? If such settlement were refused the question could then be taken into Court. Again they say that a certain case has a nuisance value. Since when has honesty had only a nuisance value? Is this ethical? Again I say, I doubt it.

It is accepted, I think, in general that the poor man has not the opportunity, because of lack of funds, to prepare himself as adequately for the Court as the great corporations. This, I think is to our everlasting shame.

A representative of a large insurance company with whom I have talked about this distressing situation, feels that the present system is all right. I cannot agree with him.

Lloyd Striker[6] in his recent book called "Courts and Doctors" states that the witness stand is an ordeal and that the contest of cross-examination is unequal. He gives the usual primer advice to come prepared, be natural, be modest, etc.

Nowhere have I been able to find a book advising the doctor how to protect himself in warding off the abuses and villifications of the cross-examiner. Such a book would I believe, become a first seller, at least amongst medical and other experts. All too frequently it seems the court permits this abuse without reprimand. Recently some of us heard that any abuse of an honest doctor by a lawyer could not destroy that doctor. This seems small recompense for the doctor.

Herzog[7] frankly makes the statement that he believes the expert will stretch a point to aid the side that he represents. As horrible as this seems to be, I must confess that I believe it is so.

Several writers believe that an expert appearing as a witness should not act as advisor to the lawyer trying the case. I cannot see any great violation of ethics in this procedure.

Emery[8] condemns the lawyers who appear in court inadequately prepared and frame questions which make it difficult or impossible to bring out medical facts as they should be. I think this statement has much merit and is somewhat responsible for the present situation. He criticizes the expert for accepting retainers in anticipation of future testimony. Isn't it a fact that many ethical lawyers accept retainers for just the same purpose? He also criticizes the expert for partisan testimony and large fees. He does not, however, offer any great or new methods of correction.

Endlich[9] is particularly critical of the present system because of the method of procuring testimony, the expense involved and danger of partisan viewpoint. All of these seem honest and fair criticisms, but here again no concrete method of correction is offered.

Friedman[10] writing on expert testimony is particularly critical. He states that the majority of judges distrust the experts. That they have been described as intellectual prostitutes ready to sell to either side. Further, that the way is left open for the charlatan to testify under the present system. That the trial is prolonged because of the length of the testimony. That juries are confused when one expert attempts to controvert the testimony of another. This latter I believe is a just criticism. How any jury can decide a technical medical question when experts appear for both sides, one controverting the other is beyond the comprehension of most people.

Frazier[11] in an article on expert testimony reports that the opinions of twenty-five judges in England and the United States were obtained. This survey showed that seventeen thought it of little value, and eight had a good word for it. In this paper Frazier states that judges have called them "alleged experts." Here again the system is criticized, but no method of correction is offered.

At the Cleveland Session of the House of Delegates of the American Medical Association in 1934, the President, Dean Lewis said:

The medical profession requires the good will and respect of the people. I know of nothing that makes people more suspicious of those engaged in the practice of medicine than the expert witness. Lay people must think that medicine does not even approach an exact science, when two men of equal distinction in medicine will give diametrically opposite statements to questions that are asked at a trial.

Members of the bar realize the futility of much expert testimony, and I would like to see the bar association approached by a committee appointed by the House of Delegates to see whether some method of procedure could be devised by which the expert witness could be eliminated. A reference board, appointed by some competent authority or commission, would probably be most satisfactory, for it could examine in camera the testimony and the documents and hand down the decision, thus avoiding the amazement concerning the conflicting statements of equally capable men."

The President's remarks went to the Reference Committee on Reports of Officers which recommended:

"Relative to the method of procedure regarding expert medical testimony, it is suggested that each state medical society establish cooperation with its state bar association in an effort to correct this abuse."

One cannot help but notice in the above reviews and criticisms that very few concrete methods of correction are offered. All the criticisms seem to be about the same.

Up to now, I have reviewed the articles that I have been able to find on this subject and, where I believed it justifiable, I have defended the doctors. And now, our own criticism of the doctors. I confess that I believe there are doctors in this state who must submit to all of the above indictments. I believe, however, they are in the minority. I feel that some men have stretched their testimony to favor the side for which they were appearing. I believe that it could be proven that their testimony was moulded to suit the particular case. I believe that the nature and extent of the injuries or illnesses have been magnified to suit the case at trial. I feel that unfair and unwarranted testimony has been given. I feel that the duration of the illness or injury has been unnecessarily prolonged. On the other hand, I also feel that doctors have appeared for the insurers or for large corporations and have minimized the injuries or illness of the plaintiff. However, I again say without fear of contradiction that the doctors guilty of these charges are in the minority.

Many attempts have been made to solve this most distressing situation, and most of them have proven fruitless.

I have circularized the attorney-generals in every state in the United States and find that there are only five states in the United States with specific statutes covering the question of expert testimony.

Rhode Island has adopted a plan of disinterested experts selected by the court upon application of one or the other side. The fee to be paid by the side requesting the experts. The criticism again of course is the stretching of testimony for the side requesting it, and the fact that the fee is to be paid by the side requesting the testimony.

In Michigan each side is allowed three experts excepting in homicide cases where as many as are desired are permitted. Again the criticism of stretching the testimony for the side paying the fee. It could be commended, however, for shortening the trial.

In Washington the court may appoint the experts. Nothing is said about numbers or fees. The same method is employed in California where the judge selects the experts, but no mention is made as to numbers or the payment of fees.

In Louisiana the court may appoint experts for its own benefits or upon the request of either side. Of these laws I think a very fair criticism, and one that I think has been used before, is that a man might be a very great jurist and still be a very poor judge of the ability or knowledge of doctors.

All of the remaining states cover the question of expert testimony in a general way as we do here in Connecticut. In other words, forty-three states have no special statutes covering the question, and five have made half-hearted or partial steps to correct it. Several states have attempted at one time or another to solve this problem, but always have been thwarted by one group or another.

With your permission, I will digress from the main subject for just a moment to discuss two allied subjects.

Lately the doctors have been severely rebuked for appearing in the minor courts in cases of people charged with operating motor vehicles while under the influence of liquor. Officials have publicly criticized doctors for their appearance. I have very definite and candid ideas about this subject. If the doctor makes his

diagnosis only after making the accused walk, and talk, and considering only his general appearance and actions, then I say that his opinion is not worth any more than that of a well seasoned police officer with experience in such conditions. If on the other hand the doctor is anxious to clear up such a situation and he believes that the accused is not drunk, let him hospitalize this person and determine the amount of alcohol in his spinal fluid and blood, and if these determinations are within normal range, let him go with him before any court anywhere and so testify. It is his duty to do so. If positive so report it to the court. Don't let it again be said of doctors that they are prostituting themselves in these unworthy cases.

I have made only a superficial investigation of the compensation courts in Connecticut. I believe, however, that the commissioners have done and are doing excellent work. Their work is hard, and their trusts difficult of fulfillment. I believe their work could be made easier by the appointment, by the proper authorities, of consulting boards of physicians who could aid them in determining medical values in relation to injuries and illnesses.

Returning again to expert testimony and assuming that we are correct that an undesirable situation exists here in Connecticut, what do we propose to do about it? If this is a challenge to medicine in Connecticut, I know that the state society willingly and gladly accepts it. It must. A member of the Council has told me that an executive of a great corporation has said that if this situation was not cleared up by our medical societies, it would be cleared up for us.

Under the existing laws, any doctor may appear as an expert upon medical or surgical questions. This, of course, is a very bad situation. I am frank to confess that I think most medical men in this state are not equipped to appear as experts. I feel, as I have said before, that it requires very special training and is as much a specialty as any of our well-known or refined specialties in medicine.

A very famous medical expert here in Connecticut in discussing this situation with me has offered a very good and able suggestion. He has appeared as a medical expert, I think, oftener than any doctor with whom I am acquainted. He has suggested that an expert should not give any testimony in court that he would not give in a scientific paper before this or any other medical society. This, I believe, is the crux of the whole situation. Would these experts appear and make the bald and bold statements in a scientific paper before this society that they make before juries? I think not. He further suggested that the fee should be a standard one and thereby eliminate the cutting question so frequently asked, "How much do you expect to be paid for your testimony?" When this question is asked the inference is obvious that the expert is appearing wholly for the fee, whether or not his side of the case has merit.

With all due deference to the honest, ability and judgment of our courts, I do not believe that judges are trained or equipped to separate or accept expert testimony or to select experts. I do not believe that this is an unfair criticism of our judges.

I believe that any solution of this problem must come from within. That is, it must come from the doctors themselves. It must be guarded and guided by the doctors themselves. In no other way can this problem be solved. If that premise is correct then the logical destination of this problem is here in our own state medical society.

Any correction of this situation must, in my opinion, be accomplished in conformity with section 21 of article first of the constitution of Connecticut which provides: "that the right of trial by jury shall remain inviolate". To attempt to amend this provision would be cumbersome and expensive and in all probability impossible of attainment. Therefore, I believe an optional form of legislation should be provided and I recommend to the Council of this society, or to the committee appointed by the Council to investigate this matter, that suitable legislation be initiated, sponsored and endorsed, covering the question of expert medical testimony. This legislation to be based wholly and entirely on the fact that this society shall submit to the governor the names of a group of doctors covering all of the specialties in medicine. From this list of names submitted to the governor, he shall appoint a desired number who shall be known as commissioners or referees of the superior court. From the approved list of referees the judge to sit in a particular case shall select one to take

medical testimony. For example, if it is predominantly an orthopedic case, an orthopedist from the group shall be selected to act as commissioner. Both sides may appear before the referee and through counsel introduce their medical evidence. Witnesses (expert) shall be subject to examination and cross-examination.

Here you will see that the attorneys still have the right to cross-examine, and if the attorneys are honest in their desire to clear up this situation, they will not have sacrificed anything. Their belief in, and respect for cross-examination will not be denied them.

Having taken the expert testimony of both sides, and having weighed this testimony carefully the referee or commissioner submits his report to the court, to be read as evidence to the jury. The right of appeal from the commissioner's decision shall not be denied.

This proposed legislation must of course be optional and give to counsel for either party the privilege to resort to the above mentioned plan or to follow the present method which has brought expert medical testimony to a very low level and which has tended to bring dishonor to our profession. I think all will have to admit that under the proposed method juries would find themselves in very much better position to determine values than they are at present with one group of experts testifying to one thing only to be controverted by another group.

All of us I am sure, believe in the honesty, integrity, ability and judgment of any number of our members to serve adequately as commissioners or referees. There are a great many of our members whom, were they sitting as commissioners, one would hesitate to attempt to bluff or to whom one would hesitate to make the preposterous statements which, at present, are not infrequently made to juries. There are many of our members, so revered by all, that one simply would not attempt, before them, a distortion of the truth nor would one attempt to magnify or minimize an existing condition.

Gentlemen I think here, and only here, is the solution of this problem. The solution is not based on fear of violation of any law by the medical expert, but is based on reverence of the acknowledged ability of the commissioners to be appointed.

To accomplish this I am sure there will be required meetings with other interested groups, to the end that this situation will be corrected.

Medicine in Connecticut is anxious and willing and clamoring to get this situation cleared up and it asks the state bar, large insurance companies, self-insurers, great corporations and labor for their cooperation.

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CANCER PROBLEM IN CONNECTICUT

By Charles L. Larkin, M. D., Waterbury
Chairman Committee on Tumor Study

Three years ago the State Medical Society took official notice that there is a cancer problem in Connecticut. A Tumor Committee was appointed to study this problem and to direct the efforts of the medical profession for the eradication and treatment of cancer. On the face of it this seems like an unsurmountable task

because the best brains in the country and in the world have been working on this cancer problem for years. In spite of the efforts of the medical profession very little progress has been made in the prevention of cancer. Seventy-five per cent of the cancer patients come into competent medical hands only when the disease is so advanced that only palliative means can be employed. This is an unfortunate state of affairs because it has been pretty well established that most early cancers when they are still local can be cured by the judicious use of x-ray, radium and surgery.

The total deaths for the state in 1934 were 17,103. The total cancer deaths were 2,168, about 1/8 of all deaths. It has been estimated that for every cancer death there are at least three other living patients suffering from cancer; so in Connecticut for any one year there would be probably four times 2,168 or 8,672 patients suffering from cancer. The distribution of cancer in the body was:

1.	Buccal Cavity and Pharynx	71
2.	Breast	266
3.	Uterus and Cervis	196
4.	Skin	32
5.	Rectum Approximately	300
6.	Peritoneum and Intestines "	185
7.	Stomach and Liver	578
8.	Respirator— System	114
9.	Other Female Genital Organs	71
10.	Male Genitourinary Organs	199
11.	Other or Unspecified Organs	156

The first five sites represent the preventable and curable types of the disease, a total of some 865 cases, and it is this considerable number of human beings that the Tumor Committee hopes to save yearly.

The problem of cancer in Connecticut is the same as in any other state and that is the prevention, the early recognition and prompt scientific treatment. The State Tumor Committee has accepted the fact that cancer is caused not by any one particular agent but by chronic irritations, which may be chemical, thermal or traumatic. It further goes on record as believing that in the vast majority of cases thorough physical examinations can detect these chronic irritants before the irritation has caused the cancer. The Tumor Committee also goes on record as stating that there are no early signs of cancer that can be detected by a layman and that it is only by careful physical examination by competent physicians that early cancer can be detected.

The Tumor Committee believes that the prevention and eradication of cancer can best be accomplished by having thorough annual physical examinations by competent physicians. Having taken this as their policy the problems are:

1. How to get the patients to submit themselves once a year for such examinations;

2. To enlist the cooperation of the physicians.

Last year the Tumor Committee made an attempt to solve the first problem by trying to encourage every physician to send out to their patients every year a card urging the patients to report for an examination; but the committee reports absolute failure to obtain the cooperation of the physicians. The only alternative is to educate the public that such an examination is necessary and have them demand yearly examinations. When laymen are taught the necessity of yearly physical examinations the medical profession will be in for a great amount of just criticism if it does not thoroughly examine these patients and eradicate the great majority of precancerous lesions and recognize early cancers that have already started.

Physicians have become very careless about making thorough examinations and apparently do not see the necessity for such examinations and do not have the ability to detect or eradicate the precancerous lesions or diagnose early cancer. A great deal of this is due to the fact that they are rushed by having their offices filled with restless patients waiting their turn and by the fact that if a thorough examination is given it takes time and most patients cannot afford to pay for this time. But the inability to detect precancerous lesions or early cancers can only be laid at the door of poor training in the medical schools or of failure to live up to good training. It is only by constantly examining our patients thoroughly that we can learn what a normal human being looks like and feels like and after we have gained such knowledge we are ready to recognize and evaluate the abnormal.

The Tumor Committee has succeeded in establishing a State Association of Tumor Clinics and has helped to establish 22 Tumor Clinics in the State. It is hoped that through these

clinics the doctors can learn to recognize the precancerous and early cancerous lesions and how these lesions can best be treated and eradicated. Further education along these lines will also be carried on through the medical schools, and by periodic cancer data which is to be sent out by the Publicity Committee for the Tumor Committee through the State Board of Health. It is felt that cancer in Connecticut can be controlled by these means but it will take time and it will take the cooperation of the practicing physicians. The public is clamoring for a solution of the cancer problem. It looks toward the medical profession for the solution and we, as practicing physicians, cannot afford to let the public's demand go unanswered.

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Activites of the State Department of Health

In Carrying Out Provisions of the Social Security Act,

by Stanley H. Osborn, M. D.,
State Commissioner of Health*

As a result of the Social Security Bill passing Congress, money was made available for public health activities in two chapters of the Bill: Chapters 5 and 6.

Dr. Linde has told you about the activities of his committee in connection with Chapter 5, which provided funds for maternal and child hygiene and for crippled children. The funds, under Chapter 5, for maternal and child hygiene amount to forty-odd thousand dollars. The money for crippled children will probably amount to about the same, although that money has not been appropriated yet or given to the State Health Department by the Children's Bureau of the Department of Labor in Washington because their lawyers have found the present setup of the Connecticut law and the law as passed by Congress do not permit the money to be handed over as yet. They are still working on it.

The money for maternal and child hygiene is being spent to carry out a plan which was taken up before your Public Health Committee, and which Dr. Linde has outlined to you.

Also, I think, they tied on the public health funds possibly to help the bill get through, because the rest of it, as you know, has to do with unemployment insurance and other insurance phases and is not concerned with public health.

The rest of the money provided under the so-called Security Bill is furnished to the State Health Departments of the country through the United States Public Health Service, and that money is divided up so that Connecticut will get approximately eighty thousand dollars.

Of the eighty thousand dollars, nearly half of it has been put aside by the Public Health Council of the State Health Department to be used by any city or town that desires to use it for carrying out its Department of Health Activities, providing the health officer is a full-time man. In other words, it cannot be used in small towns. On the other hand, if two or three towns want to join together and form a combined department of health — such as the Connecticut law allows in the so-called Sanitary District Bill — the funds will be available to help establish such a unit.

The Federal Government in general — so that I won't go into detail, unless you ask me to — provides for a flat grant to the State Health Department of $7,843. That money is intended to purchase the services of a full-time, trained physician and the necessary secretarial force, and to defray the expenses of travel in helping to establish full-time medical heads of health departments.

Continued on Page 69

*Delivered at Annual Meeting of The Connecticut State Medical Society, May 21, 1936.

Proceedings, House of Delegates

In Session at Hartford, Connecticut, May 20 and 21, 1936

FIRST SESSION

The first session of The House of Delegates during the One Hundred and Forty-fourth Annual Meeting of The Connecticut State Medical Society was held at The Hunt Memorial Building, 38 Prospect Street, Hartford, May 20, 1936, at 10:15 A.M. (Daylight Saving Time). The roll of Officers and Delegates was as follows:

President

Thomas P. Murdock, Meriden

Secretary

Charles W. Comfort, Jr., New Haven

Treasurer

Creighton Barker, New Haven

Council

Fairfield County: James Douglas Gold, Bridgeport, Chairman.
Hartford County: H. Gildersleeve Jarvis, Hartford.
Litchfield County: Charles H. Turkington, Litchfield.
Middlesex County: Roy L. Leak, Middletown.
New Haven County: Henry L. Swain, New Haven.
New London County: Charles G. Barnum, Groton.
Tolland County: Absent (illness).
Windham County: Robert C. Paine, Thompson.

Elected Delegates

Fairfield County:

Frank H. Barnes, Stamford.
Alfred C. Henderson, Stamford.
Don J. Knowlton, Greenwich (by J. Leonard Vickers, Greenwich.)
H. Bertram Lambert, Bridgeport.
R. Harold Lockhart, Bridgeport, County Secretary.
J. Stanley Nickum, Bridgeport (by Carl J. Gade, Bridgeport).
Bronislaw L. Smykowski, Bridgeport.
William J. Tracey, Norwalk.
Absent: D. Chester Brown, Danbury.

Hartford County:

David M. Caldwell, South Manchester.
Samuel J. Chernaik, New Britain (by Frank T. Oberg, Hartford).
David Gaberman, Hartford.
Harvey B. Goddard, East Hartford.
William R. Hanrahan, Bristol.
Arthur B. Landry, Hartford.
Benedict B. Landry, Hartford.
Vincent F. Mendillo, New Britain.
D. C. Y. Moore, South Manchester.
Richard A. Outerson, Hartford.
Ralph A. Richardson, Bristol, County President.
Maurice T. Root, West Hartford, County Vice-President.
Stanley B. Weld, Hartford, County Secretary.
Absent: William T. Morrissey, New Britain.

Litchfield County:

Harry B. Hanchett, Torrington.
W. Bradford Walker, Cornwall, County Secretary.

Middlesex County:

Harry S. Frank, Middletown.
Julius H. Grower, Middletown.

New Haven County:

Charles J. Bartlett, New Haven.
Stanhope Bayne-Jones, New Haven.
Frederic C. Bishop, New Haven, County President.
Patrick J. Brennan, Waterbury.
Abe S. Brown, Waterbury
William J. Dennehy, New Haven.
John S. Dye, Waterbury, County Vice-President.
William J. H. Fischer, Milford.
Cole B. Gibson, Meriden.
Willis E. Hartshorn, New Haven.
Carl W. Henze, New Haven.
James D. McGaughey, Wallingford.
M. Heminway Merriman, Waterbury.

Louis H. Nahum, New Haven.
Milo P. Rindge, Madison.

New London County:
Albert C. Freeman, Norwich.
George H. Gildersleeve, Norwich, County Secretary.
Isadore Hendel, New London.
Richard M. Starr, New London.

Tolland County:
Charles TenE. LaMoure, Mansfield Depot.

Windham County:
Cecil R. Garcin, Danielson, County Secretary.
Absent: Kenneth K. Kinney, Willimantic.

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REPORT OF THE PRESIDENT

Thomas P. Murdock, M.D., Meriden

Gentlemen of the House of Delegates:

Conforming to custom, I will outline for your action some of the activities of the President during the past year. In general the work has been very enjoyable, somewhat trying, but always time-consuming.

I have attended six meetings of the Council during the year. The outline of the work and the action taken at these meetings will be reported to you in detail by the Chairman of the Council. The work of the Council this year, I believe, will have a far greater bearing on the future of the Society, than any action taken by the Council in years. At this time I wish to remind the delegates of the large amount of work which is done by the Council each year for this Society. On behalf of the Society I wish to express my gratitude to them.

Several years ago the Delegate from this Society to the American Medical Association was also an officer of that association. Because of this a large part of his expenses was paid by the American Medical Association. Lately our Delegate has been paying a large part of his own expenses. After a conference with the Treasurer it was recommended to the Council that the expenses of the Delegates be paid in full. I believe that the time to make this change is at hand.

Following a vote of The House of Delegates in May 1935, the special Committee on Physicians' Telephone Listings and the Committee on Influence of the Society were appointed. One of these will report today and at their request the other probably will be continued to carry on the work and to report next year.

I attended the meetings of three special committees during the past year: one covering the situation regarding the amount of free work done by the hospitals; the second regarding panels for men doing compensation work; the third, the Committee of the Clinical Congress. Reports from all of these committees will be submitted to you for action at this session.

The Clinical Congress of 1935 was a very great success. The innovation of the commercial exhibit seemed to meet with the approval of the members in general. The Committee is deserving of praise by this Society.

Because of my position I have been brought into close contact with the officials of the State Department of Health. It seems to me that Connecticut is particularly fortunate in having such an important branch of government so ably handled. The Commissioner is a member of this Society and because of this there is very close cooperation between the two bodies.

Carrying out your mandate, I appointed a Committee to Investigate the Office of the Secretary. The Committee reported to the Council. You are familiar with the action of the Council, as you are, I think, with a special meeting of The House of Delegates held on January 16, 1936. Final action on this subject is to be taken at the session tomorrow. I believe that most of you will agree that this is for progress.

A very pleasant duty of the President is the visitation to each of the component county societies. I visited all of the societies at the fall meetings and three during the spring meetings. One could not help but be impressed with the high caliber of the papers and the diversity of the programmes. Early in February I had the pleasure of visiting the Hartford City Society here at Hunt Memorial.

Representing this Society I attended a banquet at New Haven given to the new Commissioner of Health of New Haven, Dr. Joseph I. Linde, a member of this Society.

From this brief outline you can see that your President has been kept fairly busy during the past year. I would have liked to have done more had my health permitted.

Finally let me take this opportunity of thank-

ing you for the many past courtesies which you have shown me and particularly for the very great honor of being President of this Society.

Respectfully submitted,
T. P. MURDOCK

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REPORT OF THE SECRETARY

Charles W. Comfort, Jr., M.D.
New Haven

Mr. President and Gentlemen of The House of Delegates:

The Secretary's office has been engaged during the year in conduct of routine business of the Society and of various Committees.

As Recorder for the Committee on Medical Ethics and Deportment of the State Society, it is desired to report that no matters requiring action by the State Committee have been referred during the year.

The Special Committee to Inquire into the Administration of the Office of the Secretary submitted the following report to the Council:

"Under instructions as noted in the accompanying resolution No. V, the undersigned Committee hereby submits the following report:

Resolution No. V

It is moved and seconded that the President of the Association shall on or before the 15th of June, appoint a Committee of eight members, of which not more than one shall be resident in any county. This Committee shall be known as the 'Committee from the State Medical Society to inquire into the Administration of the Office of the Secretary'. The function of the Committee shall be to inquire into the administration and activities of the office of the Secretary of the Connecticut State Medical Society, directing especial attention to:

1. The employment of a full-time executive secretary for the Society.
2. The continuation of a volunteer secretary with a full-time executive assistant.
3. The establishment of a permanent office for the Associaton in Hartford.
4. Inquire into the expense likely to be incurred by such a program.
5. Suggested methods of financing the increase in the State Society budget incident to such program.
6. Ways in which administrative activities of the various County Association Secretaries can be consolidated in a central State office.

This Committee shall report to the Council of the Connecticut State Medical Society not later than January 1st, 1936, presenting a resume of its findings and recommendations for improved administration in the office of the Secretary.

1. The Employment of a Full-Time Executive Secretary for the Society.

Your Committee recommends that a permanent executive secretary, a male and a layman, should be employed at a salary approximating $4000.00, and that a capable stenographic assistant at $1200.00 should be added to the office.

Reasons for the selection of a male layman secretary follows:

a. A layman would probably be more amenable to guidance and suggestions from the regulating committee hereafter named.
b. If the conduct of this office is unsatisfactory a layman may be more easily dismissed than a physician secretary.
c. A layman will not have the temptation to assume too great responsibility relative to medical matters without proper consultation.
d. The chances of getting an able person for this position at the salary contemplated are better with the layman.

Your Committee suggests that such a layman be called the Executive Secretary and he will be referred to in this report as such.

Your Committee suggests that this office be under the direct supervision of a small committee which shall be answerable to the Council, and we would suggest that this committee should include the President, the Secretary, the Treasurer of the Society, the Chairman of the Council, the Editor of the Proceedings, the Chairman of the Public Health and Legislative Committee, and others if the Council shall deem necessary. It will be thus seen that various functions of the secretary's office which will be enumerated hereafter, may be directed by one or more of the individuals of this guiding committee, which in itself is answerable to the Council. In other words, the Council of the Connecticut Medical

Society representing the members of the Society will assume the complete direction of the policies and activities of the Secretary's office through this committee.

2. The Continuation of a Volunteer Secretary With a Full-Time Executive Assistant.

Your Committee feels that this would be but a partial answer to the present and future needs of the Society. It is difficult to see how the present system can be organized to proper efficiency. If the duties of the office are to expand and offer the type of service which is given in other State societies it is difficult for the Committee to see how a member of this society who is active in the practice of medicine could administer such an office.

3. The Establishment of a Permanent Office for the Association in Hartford.

Your Committee would recommend that the permanent office of the Society be in Hartford. The following reasons for this seem obvious to the Committee:

1. The better control of legislative affairs during the meeting of the State Legislature.
2. To assist in any way possible the Connecticut Board of Medical Examiners.
3. To aid in the integration of the activities of our Society with the Connecticut State Department of Health.
4. The central location of the City of Hartford would render the office more accessible from the standpoint of travel to and from various parts of the State.

4. Inquiry Into the Expense Likely to be Incurred by such a Program.

Your Committee suggests that the following tentative budget would prove adequate to meet the needs of the above program as we view it:

Executive Secretary's Salary	$4000.
Stenographer	1200.
Office Rent	700.
Executive Secretary's and Committee travelling expenses	600.
Office Equipment	600.
Honorarium to the Secretary of the Connecticut State Medical Society and the Editor of the Proceedings	500.
Office Expenses	1000.
Publication of the Bulletin	1200.
Expenses due to added activities	2200.
Total	$12000.

5. Suggested Methods of Financing the Increase in the State Society Budget Incident to Such a Program.

In order to meet the above budget your Committee suggests the following steps be taken:

1. That for the year 1936 a special assessment should be voted by the House of Delegates to the amount of $3.00 per member and that the Society dues for 1937 be increased to $8.00 per member. (The special assessment is suggested to cover three-fourths of the year 1936 on the assumption that it will be possible to fill the office by April 1, 1936.)
2. The abolishment of the rebate of ten per cent collected dues to the County Societies.
3. That the Society discontinue the custom of giving reprints gratis to speakers at the Annual Meeting.
4. That the expense of the publication of a Quarterly Bulletin be minimized by means of securing ethical advertising matter, and that the present method of publishing the Proceedings be later incorporated in the Bulletin appearing in toto in one number, so that such a number could be bound if individual members so desire.

6. Ways in Which the Administration Activities of the Various County Association Secretaries Can be Consolidated in a Central State Office.

1. Your Committee submits for consideration without recommendation at this time the possibility of collecting the State Society dues through the Society's central office.
2. Correlation of the activities of the component County Associations by the publication twice a year of a consolidated program of all County Association meetings.
3. Investigate the phases of the care of the sick, compensation insurance and other matters, and assist County Associations in regard to medical ethics, insurance relationships, etc.

Your Committee has carefully considered the

advantages of the establishment of the proposed office and would make the following further commènt:

1. **The Bulletin.** The publication of the Quarterly Bulletin as suggested above, suggests the possibility that the Official Proceedings of the Society might constitute the first issue following the Annual meeting and that other issues would contain the papers, obituaries and other items such as Legislative proceedings.

Your Committee does not feel that such an office should concern itself with the direction of the Society's activities in the Connecticut Clinical Congress, but should cooperate in every way with the Committee on the Clinical Congress.

The proposed office could concern itself with the adoption of a Connecticut Medical Society motor emblem and make such contacts with local and State Police as would be necessary, to extend courtesy to physicians.

The proposed office could concern itself with securing the proper information relative to the medical care of so-called "state cases".

The proposed office could concern itself with medical publicity and correlate the relationships of the medical profession and the press.

The proposed office could adopt water-marked paper bearing the emblem of the Connecticut Medical Society and this could be used by the County Societies and by individual members as desired.

In addition the executive secretary of such an office would assume the following duties:

1. Represent the State Medical Society in conference with:
 a. Other State and County organizations having primary health interests and programs; or other primary interests with health implications as important problems in their work.
 b. Legislators in session.
 c. County component Medical Societies — social, educational.
 d. National Conventions — A.M.A., etc.
2. Planning and administration of the approved Medical Society program and activities — supervision of the progress made and report.
3. Review of State Journals and correspondence with other State Medical Societies to exchange ideas and plans in accord with approved principles and policies.
4. Keeping of minutes of House of Delegates and Committee meetings and sending of notices for meetings, etc.

In conclusion the Committee would state that from the study of other State Society activities, they have gained a distinct impression that the activities of those societies which have been energetically administered have received the generous support of their members in the matter of increased dues. In this connection we would call attention to a letter from Dr. Olin West, Secretary of the American Medical Association which is submitted herewith.

Your Committee as individuals have taken the occasion to secure information with regard to the general type of arrangement for the administration of the affairs of the State Society among their fellow members and we feel that the membership will unanimously support such an effective organization.

In addition to Dr. West's letter your Committee is also submitting information with regard to administrative activities of other State Societies and this information is also herewith appended.

Respectfully submitted,

(Signed) HERBERT THOMS, Chairman
CARL C. HARVEY
OLIVER L. STRINGFIELD
JAMES RAGLAN MILLER
FREDERIC W. WERSEBE
H. W. WELLINGTON
KARL T. PHILLIPS

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A special meeting of The House of Delegates was held at the New Haven Medical Association's Building, 364 Whitney Avenue, New Haven, on Thursday, January 16, 1936, 4:00 P.M., to act upon certain recommendations of the Council concerning this Report of the Committee to Investigate the Administration of the Office of the Secretary, these recommendations having been sent to the members of The House of Delegates with the call of the meeting. Fifty-six of the fifty-eight members of The House of Delegates were present or

represented by duly appointed alternates. The following recommendations of the Council, as amended, were finally adopted:

1. The Council recommends to The House of Delegates that so much of a previous vote of The House of Delegates of an unknown date that authorizes the return to the County Associations of 10% of the State dues collected by the County Associations be rescinded and that in the future the entire amount of the State dues collected by the County treasurers shall be delivered to the Treasurer of The Connecticut State Medical Society after the deduction of 5% of the total amount collected, which shall be the County Treasurer's recompense for his services in connection with the collection of the dues as at present.

2. The Council recommends to The House of Delegates that the publication of a single bound volume of the Transactions of The Connecticut State Medical Society be discontinued. In the place thereof there shall be published a "Quarterly Bulletin of The Connecticut State Medical Society" in the months of May, August, November and February of each year and distributed to all members of the Society. This Bulletin in addition to other material shall include — in the May issue, a directory of members of the Society; in the August issue, complete reports of business transacted by The House of Delegates at its annual meeting in May, and all reports presented before the House; in the November issue, comprehensive abstracts of all papers presented before the Connecticut Clinical Congress; in the February issue, such papers of conspicuous merit which may have been presented before the State Society or any County Association during the year. Reprints of material published in the Bulletin will be supplied to authors or others on order at cost.

3. The Council recommends to The House of Delegates that an office for The Connecticut State Medical Society be established, and that in this office there shall be employed a competent stenographer on a full time basis at a sufficient salary to recompense a properly trained person, not to exceed $1500.00 per annum, and that this office be provided with such furniture and equipment as may be required, cost thereof to be approved by the Council.

4. a. The Council recommends to The House of Delegates that a member of the Society shall be nominated and elected at the Annual Meeting in 1936 and annually thereafter, to an office to be known as the Administrative Secretary of the Society. The function of this Secretary shall be as prescribed in Section 4, Chapter VI, of the By-Laws, to carry on all administrative activities of the Society, and to keep its records and its roster, and to serve as the Secretary of the Council, of which he shall be a regular voting member as provided in Chapter VII, Section 1, of the By-Laws. This Secretary shall receive an honorarium of $600.00 per annum, to be paid from the funds of the Society in twelve equal monthly installments of $50.00 each.

b. It is further recommended that two additional Secretaries shall be nominated by the Council and elected by The House of Delegates at its Annual Meeting in 1936 and annually thereafter. The first of these to be known as the Legislative Secretary, whose function shall be to serve as the secretary and executive officer of the Committee on Public Policy and Legislation, and to carry on such legislative activity as may be required, this Secretary to receive an honorarium of $250.00 a year, to be paid from the funds of the Society. The second of these additional Secretaries shall be known as the Secretary on Scientific Work. His function shall be to serve as Chairman of the Committee on Scientific Work, to edit, publish, and distribute through the central office of the Society, the Quarterly Bulletin mentioned above, to arrange all scientific programs of the Society and to cooperate with the various County Societies in the arrangement of their programs. This Secretary shall receive an annual honorarium of $300.00, to be paid from funds of the Society. The Legislative Secretary and the Secretary on Scientic Work shall not be voting members of the Council, but shall meet with that body from time to time and assist it in its deliberations.

5. The Council further recommends that the Chairman of the Council, the Treasurer, and the three Secretaries of the Society shall be constituted a Budget Committee, that shall on or before the first of May each year, set up a budget for the Society which shall be submitted to the Council — sitting as the Finance Committee, as provided in Chapter VII, Section 1, of the By-

Laws — for approval and submitted to The House of Delegates in its annual meeting for adoption.

6. The Council recommends to The House of Delegates that the action regarding dues, taken at the 1935 Annual Meeting, be rescinded and that the dues collected from each member of The Connecticut State Medical Society for the year 1936 shall be $5.00.

The following deaths have been officially reported since the last Annual Meeting:

Fairfield County:
George Lincoln Bunnell, Shelton.
John Murray Johnson, Bridgeport.
Edward Lyman Kingman, Newtown.
Daniel Joseph McCarthy, Bridgeport.
Emil Joseph Susslin, Bridgeport.
David Munson Trecartin, Bridgeport.

Hartford County:
Hubert Daniel Brennan, Bristol.
Peter William Fox, New Britain.
Roger Marvin Griswold, Kensington.
David James Molumphy, Hartford.
Thomas Eben Reeks, New Britain.
Patrick Joseph Ryan, Hartford.
Edwin Parker Sanborn, Bristol.
Dwight Wallace Tracy, Hartford.

Litchfield County:
Benjamin Earle Bostwick, New Milford.
Homer Tomlinson Partree, Torrington.
Edward Quintard, Norfolk.
George Herman Wright, New Milford.

Middlesex County:
John Henry Mountain, Middletown.
Hamilton Rinde, Middletown.

New Haven County:
Henry Gray Anderson, Waterbury.
George Frederick Converse, New Haven.
Joseph Anthony Cooke, Meriden.
Willis Hanford Crowe, New Haven.
Bernard Francis Dorgan, New Haven.
Abram Aron Hershman, New Haven.
Clarence Hopkins Mercer, Ansonia.
Louis Jacques Pons, Devon.
James Michael Reilly, New Haven.

New London County:
Charles Burr Graves, Gales Ferry.
Charles Harris Perkins, Norwich.

Windham County:
Charles Hermenigilde Girard, Willimantic.
Clarence Eugene Simonds, Willimantic.

The following are no longer members of the Society, for the reasons stated:

Resigned

Fairfield County:
Frank Wade Robertson, Old Greenwich.

Hartford County:
Jacob Harold Cantarow, Los Angeles, California, (Hartford).
William Champion Deming, Hartford.
Theodore Frank Foster, West Hartford.
Charles Bertram Horton, Dayton, Ohio, (Hartford).
John Wesley Myers, New Mexico, (Hartford).

Litchfield County:
Frank Terry Brooks, Atlantic City, New Jersey, (Litchfield).

New Haven County:
John Kenneth Deegan, Albany, New York, (West Haven).
Louis Shepard DeForest, New Haven.
John Levi Rice, New York City, (New Haven)

Removed and Dropped

Fairfield County:
Paul Revere Briggs, Hartland, Maine (Noroton Heights).
Morris Horn, New York City, (Bridgeport).
William Francis Wild, Suffolk, Virginia, (Bridgeport).

Dropped, non-payment of dues

Litchfield County:
Joseph Arthur Henri Lussier, Beacon, New York, (Torrington).
James Joseph Tynan, East Milton, Massachusetts, (Torrington).

New Haven County:
Everett Clifton Brennand, New Haven.
Arthur Leo DelGrego, Hamden.
Ulric Albany Dionne, Waterbury.
Charles Joshua Epstein, New Haven.
Abraham Markoff, New Haven.
Charles Francis McGuire, New Haven.
Thomas Oscar Murray, Jr., Beacon Falls.
William Henry O'Neil, Ansonia.
George Washington Russell, Waterbury.

Michael J. Sheahan, New Haven.
Max Ruskin Smirnow, New Haven.
Louis Joseph Thibault, Waterbury.

Transferred to other State Societies

Fairfield County:
George Harold Horton, Bridgeport, (Maine).

New Haven County:
Leonard Greenburg, New Haven, (New York).

The following have been elected to membership by the several component County Medical Associations, and have been enrolled as members of the State Society:

Fairfield County:
Frederick Michael Bannon, Stamford.
Robert Morse Carpenter, Stamford.
Irving Samuel Dichter, Stamford.
Joseph Fine, Stamford.
James Francis Coleman Kelly, Old Greenwich.
David Philip McGourty, Stamford.
Alice Elizabeth Rockwell, Bridgeport.
Robert Page Rogers, Greenwich.
Francis Milton Shockley, Stamford.
Norman Briton Sowell, Greenwich.
Luther Milton Strayer, Jr., Stratford.
Israel Sidney Zaur, Bridgeport.

Hartford County:
Harry Apter, Hartford.
Charles Tiffany Bingham, Hartford.
James Edward Breslin, Thompsonville.
Donald Andrews Bristoll, New Britain.
Joseph Joyce Connor, Hartford.
Fred Conrad Enander, New Britain.
William Henry Flynn, Bristol.
Louis Henry Gold, Hartford.
Max Martin Gould, Hartford.
Margaret Ellen Hatfield, Hartford.
Perry Tyler Hough, Hartford.
George Hillel Hurwitz, Hartford.
Sinclair Simcha Levine, Hartford.
Samuel Donald Lewis, East Hartford.
Ethel Margaret MacLean, Hartford.
Thomas Francis Maher, Newington.
Christopher Joseph McCormack, Hartford.
Terrence Francis McNulty, Hartford.
Philip Jacob Moorad, New Britain.
Edward Resnick, New Britain.
George Jonas Rosenbaum, Hartford.
Raoul Andrew Victorius Siliciano, Bristol.
Vincent Joseph Squillacote, New Britain.
Lester Quentin Stewart, West Hartford.
Charles Christopher Wilson, Hartford.

Litchfield County:
Harold John Cleary, Watertown.
John Richard Elliott, Canaan.
Isadore Solomon Goldberg, Torrington.
Aaron Levy, Winsted.
Domenico L. LoRusso, Torrington.
Royal Abbott Myers, Oakville.
Harry Julius Wieler, Lakeville.
Edward Holloway Wray, Jr., Kent.

Middlesex County:
George Albert Elliott, Middletown.
Norman Homer Gardner, East Hampton.
Walter Childs Haviland, Middletown.
Thomas Earl Horsefield, Moodus.
Kenneth Schurch Scott, Essex.
Jacob Edward Waldman, Middletown.
Frederick Carpenter Wilcox, Jr., Clinton.

New Haven County:
Irvin Johnson Beebe, New Haven.
Jerry Sheridan Bell, Waterbury.
Edward P. Bergin, Waterbury.
Harry Morton Boyarsky, Wallingford.
Bernard S. Brody, New Haven.
Samuel Climo, New Haven.
Walter VanArsdale Corey, Hamden.
Charles Salvatore Culotta, Hamden.
Joseph Nicholas D'Esopo, West Haven.
Philip William Fenney, New Haven.
David Freedman, New Haven.
Richard Moses Goldstein, New Haven.
Morris Albert Hankin, New Haven.
James Clement Hart, New Haven.
Marion Edith Howard, New Haven.
Theodore George Klumpp, New Haven.
Clifford Kuh, New Haven.
Paul Harold Lavietes, New Haven.
Thomas Basil Murphy, New Haven.
George Joseph Piazza, New Haven.
Clifford Shepard Pine, Naugatuck.
Susan Page Souther, New Haven.
Lloyd James Thompson, New Haven.
Lee Douglas vanAntwerp, Meriden.
Hugh Monroe Wilson, New Haven.

New London County:
Harold Andrew Bergendahl, Taftville.
Edward Richard Comstock, New London.
Arthur Joseph D'Elia, Norwich.
Helen Knox Ferguson, New London.

Irving Friedman, Colchester.
Hyman Itzkowitz, New London.
Joseph John Mahoney, Norwich.
Patrick Henry O'Connell, Norwich.

Tolland County:
Alfred Schiavetti, Stafford Springs.

Windham County:
Helen Baldwin, Canterbury.
George Emilie Roch, Willimantic.
Joseph Lambert Roy, North Grosvenordale.

The following have been elected as new members through transfer from other State Societies:

Fairfield County:
Clifford Douglas Moore, Newtown. (Massachusetts.)

Litchfield County:
Francis Alexander Sutherland, Torrington. (New York.)

New London County:
Charles Osgood, Norwich. (New York.)

The following have been reinstated in membership:

New Haven County:
Peter James Serafin, New Haven.

The Society has gained 89 newly-elected members, with three transfers and one reinstatement, making a total gain of 93. The losses have been: by death, 33; resigned, 10; removed and dropped, 3; dropped, non-payment of dues, 14; transferred to other State Societies, 2; total losses, 62. Net gain for the year, 31. The total membership is 1,580. The following table details these changes:

County Association	New Members	Reinstatements	(Added, County Transfer)	Added, State Transfer	Died	Resigned	(Lost, County Transfer)	Lost, State Transfer	Dropped	Dropped non-payment of dues	Gain	Loss	Total Membership
Fairfield County	12	..	..	1	6	1	..	1	3	..	2	..	302
Hartford County	25	..	(2)	..	8	5	..	..	..	..	14	..	473
Litchfield County	8	..	(1)	1	4	1	..	..	..	2	3	..	65
Middlesex County	7	..	..	..	2	..	..	..	..	..	5	..	72
New Haven County	25	1	..	..	9	3	(4)	1	..	12	..	3	494
New London County	8	..	(1)	1	2	..	..	..	..	..	8	..	115
Tolland County	1	..	..	..	..	..	..	..	..	..	1	..	23
Windham County	3	..	..	..	2	..	..	..	..	..	1	..	36
Totals	89	1	(4)	3	33	10	(4)	2	3	14	34	..	1,580

Respectfully submitted,

CHARLES W. COMFORT, JR., Secretary.

REPORT OF THE TREASURER

Creighton Barker, M.D., New Haven

EXHIBIT A

January 1, 1935, Balance F. G. Graves	$5472.25	
Received Fairfield Co. 1/11/35	459.60	
" New Haven Co. 2/28/35	1592.00	
" Middlesex Co. 2/28/35	234.00	
" Hartford Co. 3/6/35	1482.40	
" Tolland Co. 3/9/35	74.80	
Received New London Co. 3/13/35	292.40	
" Litchfield Co. 3/28/35	227.80	
	9835.85	
Deposit 4/11/35	654.30	
Deposit 5/21/35	162.50	
	$10652.65	$10652.65
Paid Out		
Bond for Treasurer	5.00	
Tuttle, Morehouse & Taylor	338.65	
F. G. Graves	3.70	

Tuttle, Morehouse & Taylor.....	34.50	
	381.85	381.85
		$10270.80
Carried forward from F. G. Graves June 21, 1935.....	10270.80	
Received from O. C. Smith Fund...	40.00	
	$10310.80	$10310.80
Paid Out		
Bretzfelder & Cahn, Treas. Bond...	5.00	
G. E. Weber, Operating Lantern, Annual Meeting.....	7.00	
Tuttle, Morehouse & Taylor, Programs Annual Meeting.....	158.00	
Tuttle, Morehouse & Taylor, Stationery Secretary and Office.....	40.05	
B. B. Landry, Exp. Com. Comp. Ins.....	87.45	
S. C. Harvey, Delegate A. M. A....	43.99	
Ernest L. Averhill, Legal Exp.....	500.00	
Day, Berry & Reynolds, Legal Exp.	600.00	
Fairfield Co. Asso., Dues from Smith Fund.....	4.00	
Hartford Co. Asso.,Dues from Smith Fund.....	8.00	
Litchfield Co. Asso., Dues from Smith Fund.....	8.00	
Middlesex Co. Asso., Dues from Smith Fund.....	8.00	
New Haven Co. Asso., Dues from Smith Fund.....	8.00	
Windham Co. Asso., Dues from Smith Fund.....	4.00	
Hartford Co. Asso. Exp. Comp. Ins. Com.	7.90	
Horne & Shell, Stenotype report Annual Meeting.....	185.09	
Kilborn Bros., Book for Treas.	1.50	
Creighton Barker, Rubber Stamp (Cash).....	.90	
George Blumer, Delegate A. M. A..	43.99	
New Haven Co. Asso. to reimburse Exp. of State Committee on Medical Economics.....	91.10	
Graduate Club, Council Meeting...	10.85	
Tuttle, Morehouse & Taylor, Stationery — Secretary Office and Postage.....	143.35	
	$ 1966.07	$ 1966.07
Balance, Jan. 1, 1936.....		$ 8344.63

EXHIBIT B

RUSSELL FUND

Balance Jan. 1, 1935, F. G. Graves ..	$1223.50	
Received Bond Interest Jan. 1, 1935....	$ 172.50	
" Bank Interest, Jan. 1, 1935 ...	9.17	
" Bank Interest April 1, 1935....	10.54	
Received Bank Interest July 1, 1935...	10.61	
" Bond Interest July 1, 1935....	172.50	
" Bank Interest October 1, 1935.	11.24	
" Proceeds Bond called.....	1100.00	
	$2710.06	$2710.06
Paid Out Premium Bond.....	99.86	
Paid for Bond.....	1056.25	
	$1156.11	$1156.11
Balance Jan. 1, 1936.....		$1553.95

This fund consists of five $1000 first refunding mortgage bonds of the Connecticut Railway and Lighting Company stamped, guaranteed as to principle and interest by the United Gas Improvement Company. These bonds are no longer legal investment for trust funds in the state of Connecticut, but are not in default. The current market is about 106.

Two $1000 fifty year Debenture Bonds of the Consolidated Railway. These bonds have been in default since the July coupon date 1935, and are no longer legal investment for trust funds in the state of Connecticut. The current market on this is about 30.

One $1000 bond of the Boston and Maine Railroad guaranteed as to principle and interest by the New York Central Railroad. This bond was recently purchased to replace a Hartford City Gas Light Bond that was called. The current price is about 101. This bond is a legal investment for trust funds in the state of Connecticut.

EXHIBIT C

O. C. SMITH FUND

Balance January 1, 1935, F. G. Graves..	$502.56	
Bond Interest Jan. 1, 1935.....	20.00	
Bank Interest Jan. 1, 1935.....	3.77	
Bank Interest April 1, 1935.....	3.95	
Bank Interest July 1, 1935.....	3.98	
Bond Interest July 1, 1935.....	20.00	
	$554.26	$554.26
Paid out bond premium.....	70.00	
Paid for dues of indigents.....	40.00	
	$110.00	110.00
Balance Jan. 1, 1936.....		$444.26

This fund consists of one First and Refunding 4½ per cent Gold Bond of the Connecticut Light and Power Company Series C. This bond is legal investment for trust funds in the state

and was purchased to replace a bond of the Hartford City Gas Light Company that was called. The current market is about 112.

This is to certify that we have examined these accounts, checked the possession of the securities named, and confirmed the bank balances and find them correct.

CHAS. H. TURKINGTON
HENRY L. SWAIN
Auditors for the Society

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REPORT OF THE COMMITTEE ON PERMANENT FUNDS

The Committee on Permanent Funds has reviewed the securities held in the Russell Fund and the O. C. Smith Fund, and the changes in the portfolio necessitated by the calling of bonds previously held. The Committee has given careful attention to the bonds of the Connecticut Railway and Lighting Company which have been removed from the list of legal investments in the state of Connecticut, but in view of the facts concerning this issue of bonds it seems desirable that they be retained, for the present at least.

A decision in regard to the 4% bonds of the Consolidated Railway Company is not so easy to reach. These bonds like all of the other obligations of the New Haven Railroad are in default, and the future for them is quite uncertain, but in view of the fact that the current price is only about 30 and the proceeds to be realized from the sale of the bonds would only be about $600 the income from which when reinvested would be very small, it is the opinion of the Committee that these bonds should be held with the hope that at some time they may recover further in price.

VOTED, to approve the action of the Committee on Permanent Funds in the purchase of bonds to replace called bonds of the Hartford City Gas Light Company.

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REPORT OF THE CHAIRMAN OF THE COUNCIL

James Douglas Gold, M.D., Bridgeport

Mr. President and Members of The House of Delegates:

A meeting of the Council was held at the Sterling Law Buildings, Yale University, following the final scientific session of the 143rd Annual Meeting of the Connecticut State Medical Society on May 23rd, 1935.

It was voted, that the Chairman of the Council for the coming year shall be James Douglas Gold, M.D.

The auditors for the ensuing year shall be Charles H. Turkington, M.D., and Henry L. Swain, M.D.

The Committee on Permanent Funds for the ensuing year shall consist of the auditors and Treasurer.

The President was authorized to appoint the Special Committee to study and report to the Council on or before December 31, 1935 as voted by the House of Delegates.

A special meeting of the Council was held at the Graduates Club, New Haven, on Wednesday, November 23, 1935.

The purpose of the meeting was consideration of the Report of the Special Committee to inquire into the administration of the Office of the Secretary. This report showed that honest and efficient study had been made, with definite recommendations for the Secretary's office of the future.

Let me assure you gentlemen, the Council gave earnest thought to this report which culminated in the letter you all received over my signature. The object of that letter and postal card reply was to find out how the members of the Society reacted to a moderate increase in dues, or to dues double the amount assessed in the past few years.

The result of that card study led the Council at a special meeting held at the Graduates Club, New Haven, on December 13, 1935, to make the following recommendations for the Office of Secretary, selected from the personnel of the Society:

First: An Administrative Secretary, his duties prescribed in Section 4, Chapter VI of the By-Laws. He is to have a suitable office with a full-time stenographer, said office to be suitably equipped and furnished.

Second: There shall be a Legislative Secretary, he to be Chairman of the Committee on Public

Policy and Legislation, his duties to introduce and follow all legislation that has any bearing on the health of the community at large, or legislative matters which pertain to the profession.

Third: There shall be a Secretary on Scientific Work. He shall be Chairman of the Committee on Scientific Work, edit, publish and distribute through the central office of the Society a Quarterly Bulletin, arrange all scientific programs of the Society, and co-operate with the various County Associations in arrangement of their programs.

At this meeting it was voted to call a special meeting of the House of Delegates for January 16, 1936 at the New Haven Medical Society Building, New Haven. The above summary was presented to the House of Delegates and unanimously adopted.

The House of Delegates voted to rescind the vote taken at the Annual Meeting in May 1935 that dues for the year 1936 shall be $4.00 per capita. The Council recommended the dues for 1936 shall be $5.00 per capita. Unanimously adopted.

A meeting of the Council was held at the Hartford Club on Wednesday, April 22, 1936 to prepare for the Annual Meeting of the Society.

It was voted to recommend to The House of Delegates the following nominations for Officers, Committees and Delegates, for the ensuing year:

For President:
Daniel C. Patterson, Bridgeport

For Vice-Presidents:
Thacher W. Worthen, Hartford
Hugh B. Campbell, Norwich

For Administrative Secretary:
Creighton Barker, New Haven

Legislative Secretary:
Charles W. Comfort, Jr., New Haven

Secretary on Scientific Work:
Stanley B. Weld, Hartford

For Treasurer:
James R. Miller, Hartford

For the Committee on Scientific Work:
The Secretary on Scientific Work, Chairman
H. Bertram Lambert, Bridgeport
The Secretary of the Society (namely, the Administrative Secretary)

For the Committee on Public Policy and Legislation:
Fairfield County: Samuel F. Mullins, Danbury
Hartford County: Arthur B. Landry, Hartford
Litchfield County: Harry B. Hanchett, Torrington
Middlesex County: Louis Loffredo, Middletown
New Haven County: David R. Lyman, Wallingford
New London County: Robert R. Agnew, Norwich
Tolland County: Roy C. Ferguson, Rockville
Windham County: Joseph A. Girouard, Willimantic
The President of the Society
The Secretary of the Society
The Committee on National Legislation
Legislative Secretary, Chairman
(Refer: Minutes, Meeting of May 6, 1936)

For the Committee on Medical Examination and Medical Education:
One member for a term of five years, to begin January 1, 1937:

John C. Rowley, Hartford
so that the Committee will consist of:
1932 C. J. Bartlett, New Haven
1933 T. P. Murdock, Meriden
1934 D. C. Patterson, Bridgeport
1935 George M. Smith, Waterbury
1936 John C. Rowley, Hartford

For the Committee on Honorary Members and Degrees:
Ralph A. McDonnell, New Haven, to be chairman
Walter R. Steiner, Hartford
Thomas P. Murdock, Meriden

For the Committee on National Legislation:
D. Chester Brown, Danbury, Chairman
Henry N. Costello, Hartford
Chairman, Committee on Public Policy and Legislation

For the Committee on Hospitals: Two members for a term of three years:
Harry B. Hanchett, Torrington
Wilmar M. Allen, Hartford
so that the Committee will consist of:
1936 H. B. Hanchett, Torrington, Chairman
1934 H. B. Lambert, Bridgeport
1934 F. N. Sperry, New Haven

1935 H. W. Wellington, New London
1935 E. J. Ottenheimer, Willimantic
1936 W. M. Allen, Hartford

For the Committee on Public Health:
Members-at-large:
Louis M. Allyn, Mystic
Ernest J. Caulfield, Hartford
John S. Dye, Waterbury
Louis O. LaBella, Middletown
W. Bradford Walker, Cornwall
Representing Section on Pediatrics:
Joseph I. Linde, New Haven, to be Chairman
Howard W. Brayton, Hartford
Oliver L. Stringfield, Stamford
Representing Section on Obstetrics and Gynecology:
A. Nowell Creadick, New Haven
Joseph H. Howard, Bridgeport
James R. Miller, Hartford

For the Committee on Publications:
Charles J. Bartlett, New Haven, to be Chairman
William H. Morriss, Wallingford
The Secretary on Scientific Work

For the Committee on the Clinical Congress: for the term October 1, 1936 to September 30, 1937:
To continue the present Committee, with the addition of the Secretary on Scientific Work so that the Committee shall consist of:
Stanhope Bayne-Jones, New Haven, Chairman
Herbert Thoms, New Haven, Secretary
Charles E. Sanford, New Haven, Treasurer
The President of the Society
The Chairman of the Council
The Secretary of the Society (namely, the Administrative Secretary)
The Secretary on Scientific Work
The Secretaries of the component County Medical Associations
Such other Members as the Committee shall appoint

For the Committee on Tumor Study:
To continue the present Committee:
Thomas H. Russell, New Haven, Chairman
Wilmar M. Allen, Hartford
H. LeBaron Peters, Bridgeport
Samuel C. Harvey, New Haven
Charles L. Larkin, Waterbury
Daniel Sullivan, New London
State Commissioner of Health

For the Committee on Narcotic Drug Addiction:
To continue the present Committee:
Arthur B. Dayton, New Haven, Chairman
John H. Foster, Waterbury
Alfred Labensky, New London
Nathaniel Selleck, Danbury

For the Committee on Medical Economics:
To continue the present Committee:
The Council
Ralph A. McDonnell, New Haven
George Blumer, New Haven

For the State Committee on Workmen's Compensation and the five District Committees:

To continue the present Committees:
so that the State Committee shall consist of:
The Council
The Chairmen of the five District Committees
so that the First District Committee shall consist of:
George W. Dunn, New Britain, Chairman
Benedict B. Landry, Hartford
D. C. Y. Moore, South Manchester
Benedict N. Whipple, Bristol
Thacher W. Worthen, Hartford

so that the Second District Committee shall consist of:
Joseph A. Girouard, Willimantic, Chairman
John P. Hanley, Stafford Springs
Lewis Sears, Norwich
F. Erwin Tracy, Durham
Harold W. Wellington, New London

so that the Third District Committee shall consist of:
Francis H. Reilly, New Haven, Chairman
Creighton Barker, New Haven
Edward W. Foster, Meriden
James D. McGaughey, Wallingford
Paul W. Vestal, New Haven

so that the Fourth District Committee shall consist of:
D. Chester Brown, Danbury, Chairman
Daniel C. Patterson, Bridgeport
J. Howard Staub, Stamford

Edward J. Tracey, Norwalk
J. Leonard Vickers, Greenwich
so that the Fifth District Committee shall consist of:
Michael J. Lawlor, Waterbury, Chairman
Harry B. Hanchett, Torrington
Edward H. Kirschbaum, Waterbury
Maurice J. Reidy, Winsted
Samuel B. Rentsch, Derby

For the Committee on Influence of the Society:
To continue the present Committee:
Michael J. Lawlor, Waterbury, Chairman
Bronislaus L. Smykowski, Bridgeport
G. Gardiner Russell, Hartford

For the Committee on Medical Expert Testimony:
To continue the present Committee:
Samuel C. Harvey, New Haven, Chairman
Otto G. Wiedman, Hartford
Harold W. Wellington, New London

For Delegate to the American Medical Association: for term of two years, July 1, 1936 to June 30, 1938:
Walter R. Steiner, Hartford

For Alternate Delegate to the American Medical Association: for the term of two years, July 1, 1936 to June 30, 1938:
Samuel C. Harvey, New Haven

For Delegates to State Societies: for the term of one year, July 1, 1936 to June 30, 1937:
To Maine:
Ralph A. McDonnell, New Haven
Alfred C. Henderson, Stamford
to Massachusetts:
Philip C. McLellan, Hartford
Joseph A. LaPalme, Putnam
to New Hampshire:
Clyde L. Deming, New Haven
Charles Y. Bidgood, Hartford
to Rhode Island:
Creighton Barker, New Haven
Herbert Thoms, New Haven
to Vermont:
George Blumer, New Haven
Roy L. Leak, Middletown

For Delegates to Special Societies: for the term of one year, July 1st, 1936 to June 30, 1937:
To the Connecticut State Dental Association:
Appointed from the locality where the Dental Association meets.
To the Connecticut Hospital Association:
Chairman, Committee on Hospitals
Such other Members of Committee on Hospitals as the Chairman shall select
To the Connecticut State Pharmaceutical Association:
Arthur B. Dayton, New Haven

VOTED: to recommend to The House of Delegates that the duly elected Delegates to the New England Medical Council whose terms have not expired be discharged, and that no such Delegates be elected until required, the New England Medical Council having been discontinued through refusal of one State Medical Society to financially participate.

VOTED: to recommend to The House of Delegates that the State Society's Committee on Emergency Unemployment Medical Relief be discharged and discontinued, with the recommendation that the County Medical Association's Committee of similar name be continued.
This recommendation is made for the following reasons:
Federal relief funds are not specifically allotted to medical relief.
No method seems available to secure such allotment.
Cost of the medical care of the indigent has been definitely made an obligation of cities and towns.
Conditions of payment for such medical care by the cities and towns vary so widely that local medical organizations must make local agreements, if any.
The largest medical unit which might possibly be useful in making any agreement would seem to be the County Medical Association.
No work has appeared for the present State Committee during the year, and none seems imminent.

VOTED: to recommend to The House of Delegates the adoption of the proposed budget, pro rated for the current fiscal year, in full for the next fiscal year, submitted by the Council, acting as the Finance Committee in accordance with the By-Laws, pending formation of the Budget Committee provided for by the Society's action at the Special Meeting of January 16, 1936, as follows:

Estimated Income from Dues Only		$7,125.00
Estimated Expenses:		
Administrative Secretary	$600.00	
Legislative Secretary	250.00	
Secretary on Scientific Work	300.00	
Stenographer	1500.00	
Quarterly Bulletin, including printing and distribution	1400.00	
Office Rent	750.00	
Office Expenses, telephone, stationery and postage	400.00	
Office Sundry Account, travel, etc.	300.00	
Expense of Legislative Committee	600.00	
Expenses of Annual Meeting, programs, postage, etc.	250.00	
Expenses, Delegates to American Medical Association	200.00	6,550.00
Unexpended balance		$575.00

VOTED: to establish and open the Office of the Society on June 1, 1936.

VOTED: to recommend to The House of Delegates that the next Annual meeting of the Society shall be held in Bridgeport, on Wednesday and Thursday, May 19 and 20, 1937, date tentative, depending upon the Annual Session of the American Medical Association.

VOTED: to recommend to The House of Delegates that the nominees for Honorary Membership, made at the last Annual Meeting by the Committee on Honorary Members and Degrees and tabled for one year in accordance with the By-Laws, be taken from the table, and that Colonel Charles Franklin Craig, United States Army, Retired, of Tulane University School of Medicine, New Orleans, Louisiana, be elected an Honorary Member.

VOTED: That the Society shall pay the expense of the Delegates to the American Medical Association.

A letter from the Birth Control League of Massachusetts was referred to Dr. A. N. Credick for consideration by the Section on Obstretics and Gynecology.

VOTED: to recommend to The House of Delegates, Concerning and Handling of Funds of the Society, that the funds of the Society should not be placed with a fiduciary company to act as Treasurer of the Society, since such procedure was considered unnecessary expense for the amount of work involved or to be expected under the new secretarial organization.

VOTED: that the Treasurer be authorized to pay from the income of the O. C. Smith Fund the dues of one Hartford member, recommended by the Hartford County Medical Association with the approval of the Councilor.

VOTED: to endorse the action of the 1935 House of Delegates of the American Medical Association that medical R. O. T. C. units be reestablished in medical colleges and the military training to provide medical officers for the Army be resumed, as provided for by the amendment proposed by the Senate Committee on Appropriations in its report on the War Department Appropriation Act for 1937, H. R. 11035.

VOTED: to table a letter from Mrs. Prentiss Willson regarding the formation of a Woman's Auxiliary to the American Medical Association in the State of Connecticut, and which requested the matter be appropriately referred or considered.

VOTED: to not instruct the Society's Delegates to the American Medical Association regarding the selection of Philadelphia, for the 1937 Annual Session, as requested in a letter from the Philadelphia County Medical Society.

VOTED: that the President prepare and send to the Windham County Medical Association a suitable resolution of regret on the death of Clarence E. Simonds of Willimantic, former Councilor for Windham County.

VOTED: to approve the expression of sympathy on the death of Dr. Clarence E. Simonds of Willimantic, prepared by the President and sent to the Windham County Medical Association, as follows:

April 28, 1936.

"C. R. Garcin, M. D., Secretary
Windham County Medical Society
Danielson, Connecticut.

Dear Doctor Garcin:

The Council of the Connecticut State Medical

Society, at a meeting held at the Hartford Club on Wednesday, April 22, 1936, instructed me to extend its sympathy on the death of Dr. Clarence E. Simonds, to the Windham County Medical Association. It was unanimously agreed that the Council, the Connecticut State Medical Society and the Windham County Medical Society had sustained an irreparable loss.

Yours very sincerely,
(Signed) T. P. Murdock, M. D."

Respectfully submitted,

JAMES DOUGLAS GOLD, M.D.
Chairman

Louis H. Nahum M.D., New Haven, Delegate from New Haven County, objected to acceptance of the Report of the Chairman of the Council, questioning the propriety or right of the Council to endorse the action of the House of Delegates of the American Medical Association in urging the enactment of proposed legislation by Congress to re-establish R. O. T. C. units in medical colleges and to resume military training to provide medical officers for the Army in emergency. Dr. Nahum stated his opinion that the Society should not take any action upon anything military, and moved that time for discussion be granted during the sessions of The House of Delegates. Dr. Creighton Barker, New Haven, amended that motion so that a committee of three should be appointed by the President to whom this matter can be referred, this committee to report at the next session of the House of Delegates, in order to save time and effort. In discussion, it was explained to the House that the legislation in question had already been enacted by Congress, signed by the President, and was accomplished. The amendment and the motion were lost.

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REPORTS OF THE COUNCILORS

Fairfield County: James Douglas Gold, M. D., Bridgeport, Councilor.

Mr. President and Members of The House of Delegates:

Fairfield County continues its many activities during the past year. The Economics Committee met monthly, making studies and investigations along the lines proposed by the State Committee. Through the efforts of our committee we have been enabled to contact the town authorities and with two exceptions (Norwalk and Bridgeport) have come to satisfactory agreements, in that the indigent and unfortunate are able to secure more adequate medical care by free choice of physician, the latter paid by the town authorities at the rate of two-thirds their regular charge. Bills are rendered monthly and if seemingly excessive they are reviewed by a committee of the local medical society. This plan has been very satisfactory to the authorities and physicians.

Our October meeting was held at the Wee Burn Club, Darien, the annual golf game in the afternoon, followed by dinner and scientific session in the evening. Dr. John Shea, Vice-President, presided, due to the illness of the president. Dr. Shea read a very interesting paper on "Pilonidal Cyst, Diagnosis and Treatment." This was followed by a talk on "Everyday Mental Problems in General Practice," by Dr. C. C. Burlingame, of the Hartford Retreat.

The April meeting, held at the Stratfield Hotel, Bridgeport, was well attended and after the business meeting, we listened to two very interesting and illustrated talks by Dr. Temple Fay and Dr. Walter I. Lillie of Temple University, on neuroophthalmological and neurosurgical problems, demonstrating how the optholmologist can assist the surgeon in locating brain lesions.

Loss of members by death numbered three, our President Dr. Edward L. Kingman, Dr. George L. Bunnell, and Dr. August M. Hurlbutt. Dropped for non-payment of dues numbered eleven. New members elected were twelve, a total loss of two for the past year.

A committee is working on the revision of our constitution and by-laws, establishing a Board of Trustees to carry on the activities of the Association in the intervals between our regular meetings. This shows the Association is progressing and the membership is alive to the problems that may arise.

Respectfully submitted,

JAMES DOUGLAS GOLD, M. D.
Councilor

Hartford County: H. Gildersleeve Jarvis, M. D., Hartford, Councilor.

May 20, 1936

The 143rd Semi-Annual Meeting of the Hartford County Medical Association was held on Tuesday, October 22nd, 1935 at Lake Compounce, (Bristol) Connecticut. A very enjoyable time was had and during the evening Professor D. V. Brown of Harvard Medical School, recently appointed to the new chair of Medical Economics in that institution, was the guest speaker. He gave a very excellent resume of the present status of hospital insurance and medical group insurance. He prophesied an increase in the costs of medical care in hospitals in the near future and an increase in salaried staff physicians in the hospitals.

The 144th Annual Meeting of the Hartford County Medical Association was held in the Hunt Memorial Building on Tuesday, April 7th, 1936, the meeting being called to order by the President Dr. Arthur B. Landry. Routine business was carried on during the afternoon session and Dr. Thomas H. Russell, Chairman of the Committee on Tumor Study of the Connecticut State Medical Society, presented a review of the achievements of that committee.

Dinner was then held at the Hartford Club and Dr. Arthur B. Landry gave his retiring address on "Unfinished Business". Honorable Newell Jennings, Judge of Hartford County Superior Court, entertained the members present with a very delightful presentation of the subject "Expert Medical Testimony" and considerable interesting discussion followed, amplified by remarks from Dr. Stephen Rushmore, Chairman of Board of Medical Economics of Massachusetts.

During this past year the Hartford County Medical Association has been running along on a smooth keel and has profited very much by having a Board of Directors. At this time there is nothing special to report. The hospitals have been well filled and the Councilor has heard no special complaints either from the institutions or individuals.

During the year thirty-five (35) new members have been added. We have lost ten (10) members by death, two (2) by resignation, and one (1) transferred to Litchfield County Association.

The deaths were as follows: Percy B. Battey, M.D.; Michael Quaglia, M.D.; Gustave A. Andre, M. D.; William R. Tinker, M. D.; Peter W. Fox, M. D.; Roger M. Griswold, M. D.; Edwin P. Sanborn, M. D.; David J. Molumphy, M. D.; Patrick J. Ryan, M. D.; T. Eben Reeks, M. D.

The net increase in membership for the year 1935 was nineteen (19) bringing the total on January 1st, 1936 to 462. The actual membership today including thirteen (13) new members admitted in April, 1936 and allowing for two deaths this year is 473.

Respectfully submitted,

H. GILDERSLEEVE JARVIS
Councilor
Hartford County Medical Association

May 20, 1936

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Litchfield County: Charles H. Turkington, M. D., Litchfield, Councilor.

Mr. President and Gentlemen of The House of Delegates:

The Litchfield County Medical Association held its usual two meetings during the year. The fall meeting was held at the Hanchett camp, Bantam Lake. One of the famous beefsteak dinners of the Hanchetts was served. The general meeting followed. Among the speakers at this meeting were the State President Dr. T. P. Murdock of Meriden and Dr. C. Y. Bidgood of Hartford who gave the talk of the evening discussing the relation of the general practitioner to the urologist.

The spring meeting was held at the Charlotte Hungerford Hospital, Torrington. Aside from the usual business, the obituaries of Dr. George H. Wright, Dr. Benjamin E. Bostwick, Dr. Homer E. Partree and Dr. Edward Quintard were read. Dr. J. D. Gold of Bridgeport gave a short talk on the new administrative setup of the State Society. A case of Banti's disease treated with liver extract was shown by Dr. W. B. Walker. An exceptionally fine talk on Ectopic Gestation was given by Dr. Walter J. Dann-

reuther, Professor of Gynecology, New York Post Graduate Medical School and Hospital.

Dr. Walter R. Steiner of Hartford read a paper relating to the date of organization of the Litchfield County Medical Association. Dr. Steiner has obtained further data in regard to the date of our organization and much credit is due him for his painstaking researches and persistency in trying to establish our birth record. His researches placed the date as probably July 5th, 1779, which makes us some younger than is claimed but we still out-rank any other county association in age. This paper will be published and no doubt will be of interest to many outside Litchfield County.

Our Association is prosperous. During the year two members were dropped for non-payment of dues; one resigned, one transferred and four died. Eight new members were added making the present membership sixty-four (64).

Respectfully submitted,

CHARLES H. TURKINGTON

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Middlesex County: Roy L. Leak, M. D., Middletown, Councilor.

The Middlesex County Medical Association has held two meetings during the year, — the semi-annual on October 10, 1935, at which time Dr. Burgess L. Gordon, Associate Professor of Medicine at the Jefferson Medical College, gave a very comprehensive talk on the "Results of Abdominal Compression in the Treatment of Pulmonary Disease." The annual meeting was held on April 9, 1936, at which time Dr. Samuel F. Marshall, of the Lahey Clinic in Boston, gave an excellent resume of the "Diagnosis and Treatment of Biliary Tract Disease." Dr. Philip D. Woodbridge followed this with a brief comment upon "Anesthesia, especially relating to Surgery of the Biliary Tract." Both of these meetings were well-attended. The society has a membership of 71, having lost 2 by death, and gained 3. Several members are being carried by the society, and it is quite likely that in the very near future it will become necessary to drop several on account of non-payment of dues.

The two principal hospitals located in the district report progress.

The Middlesex Hospital has added to its service by material improvements in its dietary facilities and dining rooms. The Superintendent of this institution reports that they have done about $15,000. of free work during the past year, and that there is an average turn-over of 18 each day.

The Connecticut State Hospital is at present about 40% overcrowded, and is carrying on as best it can under the existing conditions.

The Central Medical Society, which is a thriving organization comprised largely of local Middletown physicians, has a membership of 56. Meetings are held twice a month, at which time many out-of-town speakers are engaged, and we are beginning a series of meetings at the Connecticut State Hospital for the presentation of clinical material and matters relating to the psychoses. The physicians of the local medical society have taken a keen and active interest looking forward to the establishing of a full-time medical health officer in the City of Middletown.

Respectfully submitted,

R. L. LEAK
Councilor

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New Haven County: Henry L. Swain, M. D., New Haven, Councilor.

Mr. President and Gentlemen of The House of Delegates:

The New Haven County Medical Association has completed its 152nd year of harmonious progress. Membership of the Association continues at about 500, with the number of new members about balancing the losses through death and removal.

Eight have died. Dr. Henry Gray Anderson; Dr. George Frederick Converse; Dr. Joseph Anthony Cooke; Dr. Willis Hanford Crowe; Dr. Bernard Francis Dorgan, Dr. Abram Aron Hershman, Dr. Clarence Hopkins Mercer, Dr. James Michael Reilly.

There are less than 25 physicians in the County eligible for membership who have not become members. In spite of what might be considered to be hard times it was necessary to drop only eleven members for non-payment of dues during the year, and financially the Association is in good order.

It was the pleasant privilege of New Haven

County to entertain the State Society at their annual meeting in 1935, and grateful acknowledgement is here made to the Committee on Arrangements from New Haven City Medical Association for its excellent cooperation in arranging that meeting.

The problems of economics in medicine, which for a while appeared to be so pressing, have with the passage of time, and a minimum of commotion largely settled themselves leaving us, so to speak, in statu quo ante.

The customary two meetings of the Association have been held, one in Waterbury in October and the annual meeting in New Haven last month, both of which were well attended and at which interesting material was presented.

On the whole it may be said that the Association, thanks to the thoughtful and finely considered guidance of our experienced secretary, has completed a satisfactory year in its characteristic conservative fashion, perhaps not unlike the 150 that have gone before. The same feeling of solidarity and warm companionship that has maintained the organization for more years than any other in this country, save one, has prevailed, and the future is faced with the calm and hopeful assurance, that all will continue to be well for many years to come.

Respectfully submitted,

HENRY L. SWAIN, M. D.
Councilor

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New London County: Charles G. Barnum, M. D., Groton, Councilor.

May 20, 1936

Mr. President and Members of The House of Delegates:

I have the honor to present the following report for The New London County Medical Association.

The One Hundred and Forty-fourth Semi-Annual Meeting was held at Uncas-on-Thames, Thursday, October 3rd, 1935, with Dr. Thomas J. Murray, the President, presiding. The following visitors honored us by their presence; Dr. Thomas J. Murdock, President of the State Society, Dr. James R. Miller from Hartford County, Dr. K. K. Kinney from Windham County, Dr. Wright Bean from Tolland County, and Drs. Stanley T. Osborne and A. L. Burgdorf of the State Health Department.

Dr. William P. Boardman, of Boston, gave a very interesting presentation on "The Diagnosis and Prognosis of Early Syphilis". This paper was liberally discussed. And Dr. Burgdorf spoke on the new law requiring the taking of Wassermann Tests on all applicants for Marriage Licenses.

The fine supper served by the Sanatorium was a pleasing finish of a pleasant evening.

The One Hundred and Forty-fifth Annual Meeting of the New London County Medical Association was held at The Seaside Sanatorium on Thursday, April 2nd, 1935, Dr. Thomas J. Murray, the President, presiding.

The councilor reported the resolutions adopted by the special meeting of the House of Delegates providing for the establishment of an office for the State Society with a full time stenographer and the election of three secretaries with division of the work. The suggestion was also made that the State Society might properly take steps looking toward the provision of hospital care on an insurance basis, because a demand for such provision is already being voiced among the workers and leadership by the profession seems proper in this field.

An obituary of Dr. Charles H. Perkins, of Norwich, was presented by Dr. James J. Donahue of that city.

Five were elected to membership in the Association making a total of ten additions during the year.

Dr. William T. Driscoll, of Norwich, was elected President for the ensuing year.

After the business session, Dr. Charles F. Wilinsky, of Boston, in his very engaging manner, gave a talk on "The Economic Aspects of Medicine," drawing freely on his very remarkable and extensive experience in this field.

Supper at the sanatorium closed a delightful session.

Respectfully submitted,

CHARLES G. BARNUM
Councilor

Tolland County: Roy C. Ferguson, M. D., Rockville, Councilor.

Mr. President and Gentlemen of The House of Delegates:

The Tolland County Medical Association held two meetings during the past year. The fall meeting was held in October at Somers, Conn. At this meeting Dr. F. Arthur Emmett of Hartford, Conn., gave us a very interesting illustrated talk, the subject being "Electrocardiograms and their Clinical Interpretation." Dr. Burgdorf of the State Health Department was also present and described the new marriage law. Also at this meeting the subject of full time secretary was discussed and the councilor was instructed to vote against it.

The spring meeting was held in April at Somers, Conn. Dr. D. Dillon Reidy of Hartford, Conn., was present and gave us an illustrated paper on the subject of "Transurethral Prostatic Resection." This talk was very interesting and educational.

The two hospitals of the County are busy and both are doing good work.

During the past year one new member has been added to our society and there have been no deaths.

Respectfully submitted,
ROY C. FERGUSON
Councilor

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Windham County: Robert C. Paine, M. D., Thompson, Councilor.

Mr. President and Gentlemen of The House of Delegates:

The Windham County Medical Society held three meetings during the last year. The regular Fall meeting was held in October at Danielson; we were very glad to entertain our State President, Dr. Murdock, at that time.

The annual Spring meeting was held in Willimantic.

Our third county meeting of the year was held in Putnam at the request of the State Board of Health. A representative of that organization was present and outlined the advantages of starting a Pre-Natal Clinic in Windham County with the money furnished by the Federal Social Security Act. This was discussed at length, but as the meeting was poorly attended we voted to lay the matter on the table until our next regular meeting. At this meeting it was again discussed but this time there was no one from the Board of Health to explain the details and it was again tabled until further information could be obtained.

We have lost two members by death, Dr. Charles H. Girard and Dr. Clarence E. Simonds. Dr. Simonds was a Councilor at the time of his death. We have added three members:—Dr. Helen Baldwin, Dr. Joseph Roy and Dr. Emile Roch. This makes our total membership thirty-seven.

There are no sore spots in the county. No law suits against members of the medical profession are pending and the relations of all the doctors are most harmonious.

In my first report as Councilor I must not fail to mention the name of a man who held the position of Councilor from its inauguration until his death with the exception of two terms which were declined on account of illness. Dr. Overlock was a Councilor in word and deed and his influence is still strong in our county.

Respectfully submitted,
ROBERT C. PAINE
Councilor

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REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Samuel F. Mullins, M. D., Danbury
Chairman

Mr. President and Gentlemen of The House of Delegates:

The Legislature not being in session this year, and no matters having been referred to the Committee on Public Policy and Legislation, there has been no business transacted by the Committee. Observation of the effect of some of the legislation enacted at the last session of the General Assembly has been maintained.

Respectfully submitted,
SAMUEL F. MULLINS
Chairman

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

H. Bertram Lambert, M. D., Bridgeport
Chairman

Mr. President and Gentlemen of The House of Delegates:

The Committee on Scientific Work has held three meetings and several telephone meetings and submits as its report the program for the meeting.

Respectfully submitted,
H. BERTRAM LAMBERT
Chairman

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REPORT OF THE COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION

Thomas P. Murdock, M. D., Meriden
Secretary

Mr. President and Gentlemen of The House of Delegates:

The Connecticut Medical Examining Board admitted to its examinations during the past year, one hundred and forty-three applicants. Of this number eighty-seven took the written examinations and fifty-six were admitted to the examination on the basis of credentials. There was a total of twenty-nine failures or twenty per cent. Four osteopaths wrote the examinations in medicine and surgery and all four failed to meet the requirements.

The Committee functioning as a Complaint Board, held one special meeting during the year. At this meeting seven physicians appeared on major complaints.

Respectfully submitted,
T. P. MURDOCK
Secretary

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REPORT OF THE COMMITTEE ON HONORARY MEMBERS AND DEGREES

John P. Hanley, M. D., Stafford Springs
Chairman

No report submitted.

Dr. Ralph A. McDonnell of New Haven, member of the Committee, was unanimously granted the privilege of the floor and spoke of the nominations for Honorary Membership made one year ago, Colonel Charles F. Craig and Professor Russell H. Chittenden. He particularly emphasized his interest that the Society elect Professor Chittenden to Honorary Membership as a proper sequence to conferring upon him the degree of Doctor of Medicine; that he understood a provision of the By-Laws interfered with such action, and that he hoped the By-Law would be suspended to permit such election. Upon being informed that the By-Law could not be suspended, due to lack of any specific provision for such suspension in the By-Laws, but that the Council was recommending procedure to hold active Professor Chittenden's nomination and to make possible his proper election to Honorary Membership at the next Annual Meeting, if so desired, Dr. McDonnell called attention to Professor Chittenden's age, and said he hoped election could be accomplished before it was too late.

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REPORT OF THE COMMITTEE ON MEDICAL ETHICS AND DEPORTMENT

D. Chester Brown, M. D., Danbury
Chairman

(Nothing referred; no action; no report required.)

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REPORT OF THE COMMITTEE ON NATIONAL LEGISLATION

D. Chester Brown, M. D., Danbury
Chairman

Mr. President and Gentlemen of The House of Delegates:

In the absence of Dr. D. Chester Brown, and at his request, I am submitting a report of progress.

It seems unnecessary to do more than call attention to the many medical phases of the Social Security legislation enacted by the present Congress. The State of Connecticut will receive subsidies from the Federal government according to plans which are now being formulated by the Connecticut State Department of Health. These plans are being worked out in conjunction with the Public Health Committee of this Society.

Legislation looking toward the socialization of

medicine is as yet in abeyance but the time may come when appropriate officials of this Society may have the opportunity effectually to cooperate with the American Medical Association in making known to our state representatives in Congress the desires of our members.

Respectfully submitted,
JAMES R. MILLER

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REPORT OF THE COMMITTEE ON HOSPITALS

Edward J. Turbert, M. D., Hartford
Chairman

Mr. President and Gentlemen of The House of Delegates:

The past year has been a very trying one for the hospitals of this State, due to the heavy drain upon their financial resources, resulting from the continued economic situation. Many find it impossible to balance their budgets for ordinary operating expenses.

The following major changes in the hospital situation have occurred since the last report of this committee.

St. Raphael Hospital, New Haven, has added a new Children's Pavilion with a capacity of forty-eight beds.

Grace Hospital, New Haven, has made extensive alterations in the Maternity Department.

The Neuro-Psychiatric Institute, Hartford, has added a personnel dormitory and a new Science Building. Part of the latter will be devoted to original research.

Reports from other sections of the State reveal no changes of great importance.

The hospitals in the large cities find themselves in an embarrassing position in regard to the so-called "State Cases". For many years past the hospitals have accepted appropriations from the State in return for which, reduced ward rates were established for State cases. At present due to the abnormally increased number of these cases, and the great increase in cost of maintenance since the time this agreement was originally entered into, the hospitals find they are losing large sums in some instances,— as high as $40,000 per year. We understand that the Connecticut Hospital Association will at the next meeting of the State Legislature attempt by new legislation to remedy this antiquated and inequitable form of subsidization. We should lend them every possible assistance.

In Hartford County there is functioning a committee known as "The Hospital Committee of the Hartford County Medical Association" composed of representatives of the various hospitals in the county and members of the profession under the chairmanship of Dr. Robert L. Rowley of Hartford.

Their chief objects are exchange of information and standardizing procedure so as to eliminate many abuses which have crept in effecting both the hospitals and the profession. This committee is doing good work, and if the other county associations are not so organized it is well worth their consideration.

Turning to the humanitarian viewpoint we find that the hospitals of this State are operating in a highly efficient manner and rendering a very valuable service to their respective communities.

Respectfully submitted,
EDWARD J. TURBERT
Chairman

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REPORT OF THE COMMITTEE ON PUBLIC HEALTH

Joseph I. Linde, M. D., New Haven
Chairman

Mr. President and Gentlemen of The House of Delegates:

Your present Committee on Public Health has had a rather active year on account of its participation in the arrangements of programs and budgets with the State Department of Health, made possible by the grants for Child and Maternal Health and Crippled Children by the Social Security Act.

The Committee by its representation of gentlemen with diversified interests, viz., obstetricians, pediatricians, and general practitioners, as well as an accessory committee of orthopedists called in for advice concerning crippled children services, has been in a position to properly advise and assist the State Department of Health in its development of services along lines suggested by the Department and approved by the United States Children's Bureau.

One of the requirements of State Plans, under the Act, calls for the cooperation with medical, health, nursing, welfare groups, etc., consequently your Committee was the logical group to represent the medical agency of the State.

Dr. A. Nowell Creadick was appointed Secretary of the Committee.

At the first meeting held in New Haven, the Grants to the States under the provisions of the Act were discussed.

The Committee was invited by the Commissioner of Health to participate in the development and planning of the following work:

(1) Child Health Service,
(2) Maternal Health Service,
(3) Crippled Children Service.

According to the Act, all of these must be supervised by the State Health Department or its designated agency. At this meeting the Commissioner stated that about $38,000 for Child and Maternal Health and about $20,000 for Crippled Children would be available. Since then there have been additions to these funds. All this money must be matched by State money.

The existing Child and Maternal health program is to be extended and the funds are for the primary purpose of strengthening services for mothers and children in rural areas, in areas suffering from economic distress and among groups in special needs.

The Committee approved of the present activities of the Department of Health in its maternal and child health program and agreed that an extension of this work would be advisable under the Social Security Act Grants. It recommended the following allocations: (A) Maternal Health, a specific program in a single district that seemed to be most in need. (B) That the money for Crippled Children be used for a state-wide survey. (C) To extend the Child Health Service already existent.

It was suggested to the Commissioner that the grants under the United States Public Health Service titles be distributed in the following way: (1) To strengthen the Central State Department of Health; (2) To improve local departments of health or, (3) to create new health or sanitary districts under full-time medical health officers.

It was felt that this money should be allocated in such a manner that new projects should not be attempted which could not be continued by State or local funds.

It was agreed that the northeastern portion of the State, on account of its slightly higher maternal and infant mortality, probably due to the number of married women working in mills, would be the desirable location for the State Department of Health to develop its Maternal Health Program, provided, however, that the cooperation and assistance of the local County Medical Society could be obtained.

It was deemed advisable to extend throughout the State the Child and Maternal Health Programs now being carried on stressing prenatal care, maternal health, the usual child health program, oral hygiene and proper physical preparation of preschool children about to enter school.

The importance of renumeration of the local doctors participating in the work has been emphasized and arranged. Every doctor is entitled to be paid for these services which heretofore have been furnished gratis by an ever-willing, self-sacrificing profession.

To simplify the work of the Committee and at the request of the Children's Bureau, small advisory committees in pediatrics and obstetrics were appointed.

At a later meeting the tentative program and budget for Child and Maternal Health was discussed, as well as the selection and appointment of an assistant director of Child and Maternal Health.

Two meetings were held in February in Hartford at which time several orthopedists and a few members of the Committee met with the Commissioner of Health to discuss the Crippled Children's Program.

At the last of these two meetings the urging of the reporting of physical defects of children under six years of age according to the law was discussed and the Committee requests all physicians to comply with the law. A definition of defects for the purpose of administering this law and also one of the crippled child for the purpose of administering the grants for crippled children is in the process of preparation by the State Department of Health and your Committee.

It was brought out in the discussion of the definition of a crippled child, that not only the child with an orthopedic deformity but also children suffering from crippling diseases, for example, rheumatism and rheumatic heart disease, in which good convalescent care plays such an important part, be included.

The setting up of a bureau for crippled children's service was also discussed and it was believed that it should be headed by a physician and existing facilities are to be used as far as is possible.

At a recent meeting held in Hartford, so-called refresher courses were talked over. At this meeting, Dr. Murray and Dr. Applewhite of the Children's Bureau and United States Public Health Service, respectively, were present.

It was the sense of the meeting that various groups of the State Society were in a position to go into the various communities away from medical centers and give clinical courses and assistance to men in the field who are to participate in this program. It is planned, provided that the program is acceptable to the physicians and to the County Medical Society, that various specialists capable of doing this will give intimate courses in obstetrics, stressing prenatal work, maternal morbidity and mortality and in pediatrics, stressing neo-natal care, child hygiene, infant and child nutrition immunization, detection of defects and child guidance.

The possibilities of institutes at the time of regular sessions, such as the annual meeting and the Clinical Congress, were also considered.

At this point, let me quote Dr. McCowan of the United States Children's Bureau, from a report last week to the American Academy of Pediatrics.

"In respect to the educational program the Children's Bureau encourages the use of funds for this purpose from grants in aid. In more than half of the plans approved, the states are contemplating educational services to physicians through institutes, refresher courses and other means of keeping the physician in touch with the latest medical developments in obstetrics and pediatrics."

To summarize, the funds granted to the State of Connecticut for Child and Maternal Health are to be used to extend and amplify the existent program of the Department of Health. This is to include a maternal welfare program in the northeastern part of the state as well as an increase in the general child health program, a service for crippled children which will attempt to locate crippled children and arrange for correction of such defects in children who for various reasons, mainly financial, are not now under care or treatment, such care and treatment to be given by already existent agencies, all this being directed by the State health agency with the aid of your Committee, through smaller sub-committees acting in an advisory capacity on medical matters. The Dental and Nursing Committees have been appointed by their respective society.

The actual work in the field, except for direction, is to be carried on by physicians of this Society in their own communities. The educational program for these physicians is also supplied by members of this Society who are specializing in obstetrics and pediatrics. All members participating, excepting, of course, the Advisory Committee, are to be paid for their time from these funds.

I. It is the sense of the Committee that the Council and House of Delegates pass a resolution favoring the act of the last Lesiglature in regard to the formation of sanitary districts with full-time officers.

II. Inasmuch as the handling of accident cases has become a matter of grave importance, it is the sense of the Committee on Public Health that the Council take such action as is necessary to place before the State and local police organizations and any other agency that it desires, the vital importance of proper splinting of fractures before transportation.

This action was taken on account of reports from various hospitals of accidents being brought to the hospitals in private automobiles as well as police cars, where evidence of further injury was produced in the patient in the process of transportation.

III. On account of complaints of the clergy and others in regard to fees charged by physicians for taking of blood, for testing for marriage license, it is recommended that a fair charge by the local physicians for drawing the blood be three dollars for one and five dollars for both parties provided they appear at one visit.

Your Committee further urges that the matter be discussed with all the organized groups of clergy in the State, that the value of the law be understood, that the attitude of the medical profession be clear and in order to obviate a great

burden, the deserving poor be allowed a remission of the specified fee on recommendation to the physician by the clergy, the true facts being stated by letter to the physician.

IV. It is recommended that standing orders and policies for Public Health Nurses as amended and as approved by various groups, including your Committee, a copy being enclosed, be approved by the Council.

The following meetings were held:

New Haven — July 8, 1935.

New Haven — January 3, 1936.

Hartford with orthopedists — January 30, 1936.

Hartford with orthopedists — February 14, 1936.

Hartford — May 6, 1936.

Your chairman is deeply indebted to Dr. A. Nowell Creadick of New Haven, who acted as secretary of the Committee and to all the other members who most generously gave their time to attend meetings, coming from great distances and usually giving up the greater part of the day. Dr. Stanley H. Osborn has cooperated with this Committee to the fullest extent and with pardonable pride may I say the Committee has cooperated with him and his Department to the fullest extent.

JOSEPH I. LINDE
Chairman

Dr. J. Leonard Vickers of Greenwich, Delegate from Fairfield County, objected to the recommendation contained in the Report regarding the proper fees for the taking of blood from applicants for marriage licenses, stating he did not consider it proper for the Society to fix fees; that the amounts recommended might be stated as minimum fees, but that he felt the Society should not officially take such action. Dr. Vickers was informed that the Council had already considered the recommendation and had determined not to act upon it at this time.

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CONNECTICUT STATE PLAN FOR MATERNAL AND CHILD HEALTH SERVICES

I. Financial Participation by the State.

In following out the budget requirements it is to be noted first, that all spaces and pages devoted to reports of local and private funds on the accompanying forms are left blank, because the State Department of Health receives only State funds to carry on its work. This report includes the form "Budget Series MCH-3" for the six months period ending June 30, 1936, which shows that the sum available to the Bureau of Child Hygiene of the State Department of Health for six months is $19,179. This enables Connecticut to match the total Federal funds available for the six month period. The sum of salaries and travel available for the Bureau of Child Hygiene personnel is $11,431 for the six months period. Under Fund A on "Budget Series MCH-3" we are asking $11,490 for new personnel which will bring the total to $22,921 for (State and Federal) salaries and travel. Other State funds available amount to $7,748 for the six months period, and we request an additional $7,690 from Federal Fund A for the new work. These sums will make a total of $15,438 for "other expenditures." The sum total for the six months period for all contemplated expenses will be $38,359.

II. State Health Agency.

The activities of the Bureau of Child Hygiene now carried on are:

1. *Issuance of birth certificates.* Birth Certificates are issued for children born in the State with the exception of those born in fourteen of the larger cities and towns which issue their own certificates on forms supplied by the State Department of Health. With each birth certificate sent from this office are included various pamphlets on infant care, and leaflets on the importance of early diphtheria immunization. Prenatal work at the present is done through the issuance of a series of nine prenatal letters and various pamphlets and booklets that carry with them educational information regarding the care of the expectant mother. The scope of this work has been limited because of an insufficient budget. There is a definite need to expand the prenatal part of the Bureau work.

2. *Supervision of midwives.* This includes the personal supervision of the midwives through the visits of the Supervisor to their homes where she inspects their obstetrical bags, condition of the homes and the general personal appearance of the midwives. She also tries to learn if they are complying with the State laws and the Midwifery regulations of the State Sanitary Code.

Whenever a report of any misdemeanor or unprofessional conduct on the part of any midwife is reported to this office, the Supervisor makes an investigation. She consults with the doctor who finally takes charge of the case and, in case of prosecution, she secures court records for the State Department of Health files. Each year a Midwife Institute is held. At this meeting the services of outstanding doctors are secured as speakers.

3. *Well Child Conferences.* These are carried on from an educational point of view. They have grown to be over 80 in number. These conferences are conducted by local doctors, nurses and lay workers whenever they are available. If there is no local help, then the Well Child Conferences are conducted by doctors and nurses of the Bureau of Child Hygiene. At any time that a local doctor or nurse calls upon the Bureau for advice he or she is given the benefit of its experience and help in any way possible.

4. *Summer Round-ups.* Two hundred and four group Summer Round-ups were held during the season of 1935. At the Summer Round-ups a physical and dental examination is given each child. If professional advice is needed, whether it be medical, surgical or dental, the child is referred at once to the family doctor or dentist for care.

5. *Oral Hygiene program.* This is conducted under similar lines as the Well Child Conference. The dental hygienist cleans the teeth of the children, checks the defects and sends a report of her findings to the parents of the children, and refers all cases of repair work to the family dentist.

6. *May Day program.* This includes a broadcast program, health playlets supplied to the schools of the State, the Governor's May Day Statement and a copy of the President's May Day Proclamation sent to every school in the State, and the distribution of all May Day literature which is available.

III. Methods of Administration.

For details of the program for Midwifery, see Section II, (2) of this report, *State Health Agency.*

Whenever a Well Child Conference is organized the Health Officer of the town is interviewed first. To him the plan of the work and the ideals for which we are working are submitted. With his approval the local doctors are then called upon in alphabetical order. To each is explained the work — its character, its purposes and the way in which it is to be carried on. With the assurance of the support and cooperation of each doctor a Well Child Conference for that community is then organized and the work begun. These programs whether carried on entirely by State workers, by local workers or by State and local workers together are uniform in character. Three fundamental principles are adhered to. The work is to be done with and for the doctors; it is to be educational; it is to be permanent. The Summer Round-up program is virtually the same as that of the Well Child Conference. It is confined to children of the four to six year old group.

The Oral Hygiene program is conducted along lines similar to those of the Well Child Conference. The dental hygienist cleans the teeth of the children, checks the defects and sends a report of her findings to the parents of the children, and refers all cases of repair work to the family dentist.

The expansion of activities is to be carried forward on the same general lines as at present. Our activities are largely in rural communities of which there are two classes. In certain communities of the State there is no resident doctor, public health nurse or even a part time school nurse. In such communities the health program must be carried on by State workers at present. In other communities where perhaps, there are one or more resident doctors, a full or part time public health nurse, or a school nurse, the local health agency is asked to take over as much of the health program as possible. In some instances they take over the work entirely with only the supervision of the State Department of Health through its Bureau of Child Hygiene. When only a part of the work can be done by the local health workers, the remainder is supplemented by the State Department of Health. Local lay helpers are asked to take certain parts of this work, such as transporting mothers and children to and from the health centers and assisting at the Well Child Conferences or Summer Round-ups. This assistance means to help weigh and measure the children, to get them ready for a physical examination, to act as hos-

tess for the afternoon, to furnish clerical work, etc. Some Well Child Conferences are held monthly, some bi-monthly, some quarterly and others semi-annually. The latter are held twice a year because of the condition of the country roads in the winter and early spring and also that we may be able to spread the work over as much of the State as possible. The accompanying charts will show the distribution of these Well Child Conferences.

The plan for the sum to be requested under Fund B has not yet been outlined. It will be submitted a little later after the plan for allotment under Fund A has been approved.

IV. Reports to Secretary of Labor.

The State Agency through the Bureau of Child Hygiene will make any report upon forms provided by the Secretary of Labor at such time and in such way as the Secretary of Labor requires.

V. Extension and Improvement of Local Maternal and Child Health Services. (Outlined under VI.)

The work of the Bureau of Child Hygiene is carried on in the rural communities and in parts of the State that are not covered by health work. (For types of work carried on under present State plan see *Section III, Methods of Administration.*)

STATE OF CONNECTICUT

There are no County Health Units in Connecticut. The Maternal and Child Health Program is conducted on a State wide basis through regional health units.

1. In each of these districts there is a supervising Maternal and Child Health nurse who works in a co-operative way with all local health workers. Under the proposed extension there will be three additional supervising nurses to serve the parts of the State not adequately covered at the present time, thus extending nursing services to the rural areas not already covered.

2. In the dental program additional dental hygienists will be added to the staff and will be located in the regional health units to carry on a dental hygiene program in local rural areas.

3. The number of Well Child Conferences will be increased and these will be established in rural areas not already covered by the existing services.

4. The Summer Round-up campaign and Conferences have been established and are carried on in many parts of the State. Under the extension of Maternal and Child Health services these will be increased in number so that rural areas not already served will be brought under the State plan.

5. Pre-natal and post-natal conferences (both nursing and medical) will be organized and established in areas of the state as the program progresses and co-operation is obtained through local medical and nursing groups.

6. Educational work, especially that carried on through the conduct of Little Mothers' Classes and Mothers' Clubs will be increased due to the additional number of staff workers. These classes and clubs will be organized and established in the more rural areas and manufacturing districts where the need of such an educational program is the greatest.

VI. Cooperation with Medical, Nursing and Welfare Groups.

From the beginning of the organization of child health work in the State of Connecticut there has been the closest cooperation between the State and local health officers and doctors, dentists, nurses, women's clubs, men's clubs, lay workers and county temporary homes for children. The work also has been and is being done under the approval of the State Medical and Dental Associations. The plan of procedure will be as follows:

A. Advisory Medical, Dental and Nursing and Welfare Committee for the Bureau of Child Hygiene. This Advisory Committee will be composed of two pediatricians, two obstetricians, two dentists and two nurses.

1. The pediatricians and obstetricians will be selected by the Public Health Committee of the State Medical Association through its Chairman.

2. The two dentists will be selected by the Oral Hygiene Committee of the State Dental Association through its Chairman.

3. One nurse from the State Department of Health, (Director of the Bureau of Public Health Nursing) and one from the Connecticut State Nurses' Association.

Functions

1. To confer with Director of the Bureau of Child Hygiene on the program.

2. To organize post-graduate teaching institutes for local and county medical and dental societies, and nurses.

(The members of this Committee are not to be paid for advisory service on the Committee, but a sum is provided to pay each member of the Committee when he serves as a speaker at the Institute.)

a. Obstetrics.

b. Pediatrics.

c. Dentistry.

d. Nursing.

3. The Director will clear policies through this Advisory Committee on local medical and dental problems; for example — if a problem raises whereby any woman in a given community is unable financially or otherwise to obtain proper medical-prenatal care this Committee will then be consulted and devise ways and means of meeting this need.

B. Prenatal and Postnatal Program.

(1) *Education*

1. *Local Physicians.*

Carried on by post-graduate institutes (as above).

2. *Local Communities*— Cooperating with the Bureau of Child Hygiene.

a. Prenatal lectures (with lantern slides, etc.) given by the personnel of the Bureau of Child Hygiene and local physicians.

b. Organization of a Maternal and Child Health Committee from local women's groups.

Functions of Maternal and Child Health Committee.

1. Sponsor prenatal lectures and mothers' clubs.

2. Help with maternity bundles and layettes in areas of need.

3. Help with transportation — such as the formation of a motor corps.

4. When any problem prenatal case is brought to the attention of the Bureau of Child Hygiene this Committee will help with any financial problem such as raising funds for medical care or for hospitalization of needy cases. The Director of the Bureau of Child Hygiene will supervise the Child Health Committee in this service.

3. *Classes for Boys and Girls.*

In communities where this service is not already provided, this is to be worked out between the Bureau of Child Hygiene and other necessary agencies.

4. *Prospective Parents.*

a. General education regarding physical and mental fitness for marriage.

b. Prenatal lectures given by local physicians.

c. Distribution of prenatal literature.

d. Organization of mothers' clubs.

(2) *Home Visits to Prenatal Cases by Child Hygiene Nurses.*

Procedure of these visits and the instruction given, will be outlined by the Bureau of Child Hygiene, with the cooperation of the Bureau of Public Health Nursing.

(3) *Medical Supervision.*

a. Medical supervision of prenatal cases is to be carried on in the offices of the local physicians unless a specific local need arises; then the local physicians, the Director of the Bureau of Child Hygiene and the Obstetrical Section of the Medical, Dental and Nursing Advisory Committee may decide whether a prenatal conference (with a medical examination) should be established.

(4) *Maternity Service* (in special projects only).

a. *Medical and hospital.*

The services for needy cases may be arranged for by the Director of the Bureau of Child Hygiene.

b. *Nursing.*

Standards for this service will be outlined by the Bureau of Child Hygiene in consultation with the Obstetrical and Nursing members of the Advisory Committee, and with the local Medical Group. The program will include mothers' clubs, little mothers' classes, home visiting and home teaching (prenatal and postnatal) by the nurses of the Bureau of Child Hygiene. This program will be worked out jointly by the local physicians and the Director of the Bureau of Child Hygiene with the advice of the Advisory Medical, Dental and Nursing Committee. The rules for this service will then be given to the local nurses by the Director of the Bureau of Child Hygiene.

State of Connecticut

VII. Co-operation with Medical, Dental, Nursing, and Welfare Groups.

State Advisory Committee.

Obstetrical Section.

James Raglan Miller, M. D., 179 Allyn Street, Hartford, Conn. Telephone — Office 2-1849. Residence 4-3672.

A. Nowel Creadick, M. D., 79 Trumbull St., New Haven, Conn. Telephone Office 6-0739.

Pediatric Section.

Howard Brayton, M. D., 179 Allyn St., Hartford, Conn. Telephone — Office 7-1485. Residence 7-1777.

James H. Root, M. D., 103 North Main St., Waterbury, Conn. Telephone — Office 4-1837. Residence 4-2758.

Dental Section.

George S. B. Leonard, D. D. S., 36 Main St., Mystic, Conn. Telephone — Office 205. Residence 335.

Claude B. Tschummi, D. D. S., 6 East Main St., Stafford Springs, Conn. Telephone — Office 197. Residence 307.

Nursing Section.

Elizabeth S. Taylor, R. N., Director, Bureau of Public Health Nursing, State Department of Health, Hartford, Conn. Telephone — Office 7-6341, Ext. 841. Residence 5-3514.

Rachel McConnell, R. N., President, Connecticut State Nurses Association., Hartford Hospital, Hartford, Conn. Telephone 2-9394.

Welfare Section.

F. C. Walcott, Commissioner.

(Member yet to be appointed).

Note: The Commissioner of Health has interviewed the Commissioner of Public Welfare, Senator F. C. Walcott. The latter will appoint some member of his Commission to serve on the Advisory Committee.

VIII. Demonstration Service.

It has not been possible to give adequate prenatal and postnatal services to our communities because of the limitations of the budget. There has been such a demand for Well Child Conferences and Summer Round-ups that there have not been funds enough to cover both programs. It is greatly desired to put an intensive prenatal and postnatal program throughout the State. There are certain rural sections as in the northwestern, the northeastern and southeastern sections of the State which are not covered by child health work in any form.

It is to these communities, especially to our big manufacturing districts where the cotton and silk mills are located, that the demonstration services should be carried; because the mothers, in order to supplement the family income, feel that they must go to work in the factory within three or four weeks after birth of their children, and consequently breast feeding seems to be almost impossible. It is proposed to begin this demonstration service in the northeastern part of the State through an intensive health educational program, that the mothers may know how to take care of themselves, learn the necessity of putting themselves under the care of their physicians at the beginning of their expectant period and the need for postnatal care after the birth of the child. All of these problems are to be taught in every way possible and always through and with the local health officers, doctors, nurses and other health agencies.

For details see Section VI, Cooperation with medical, nursing and welfare groups.

The Medical Society of Windham County where the Demonstration is to be developed, met in special session on the evening of Tuesday, February 25th. The project was discussed at length by the various members of the County Society. At the close of the discussion it was voted to express their pleasure in having the Special Project developed in their part of the State. Each member saw the need of it and expressed himself as being glad to do all that he could to carry the work forward. It was generally understood that every part of the program was to be supported by the doctors of Windham County cooperating with the State Department of Health.

State of Connecticut

SUPPLEMENTARY DATA IN REGARD TO CONNECTICUT'S PLAN FOR MATERNAL AND CHILD HEALTH SERVICES TO BE CARRIED OUT WITH FUND B MONIES

All the funds in Fund B are to be used in the

division of mouth hygiene of the bureau of child hygiene.

Personnel

1. Dentist. The Connecticut plan requests money to employ a full time dentist as chief of the division of mouth hygiene, and a —
2. Dental Hygienist.

(Both of these positions will supplement the dental hygienist employed for several years by the State, and the part-time chief of the division of mouth hygiene, and in addition the dental hygienist who has been employed under money from Fund A of the Social Security Act.)

The personnel of the division ot mouth hygiene bureau of child hygiene, will ultimately consist of the following full time employees when Fund A, and Fund B personnel have been added, as follows:

1. Dentist, chief of division of mouth hygiene.
2. Three dental hygienists.

Need of Mouth Hygiene Activities in Connecticut

For a period of over eleven years, the Connecticut State Department of Health has had a dental hygienist in the bureau of child hygiene under a part-time dentist who has been employed for approximately the same length of time as chief of the division of mouth hygiene in the bureau of child hygiene. Now a problem presents itself to put this division of mouth hygiene in the position of promoting mouth hygiene or dental hygiene under the direction of a full time dentist. Connecticut is greatly in need of this work as the majority of towns are without a resident dentist and most of the children in the rural sections are not receiving dental care regularly.

The addition of a full time dentist as chief of the division of mouth hygiene as requested in Fund B, should give impetus to Connecticut's mouth hygiene efforts as follows:

I. Active promotion of mouth hygiene by:

A. Stimulating mouth hygiene activities in towns, cities and boroughs, through

1. Boards of Health.
2. Boards of Education.
3. Other associations and organizations.

B. Furnishing cooperative effort to other State authorities such as the State Board of Education, Department of Public Welfare, etc.

C. Giving additional lectures, radio broadcasts, preparation of pamphlets and other educational material.

D. Preparing and loaning exhibits for local showings; also moving pictures, particularly the 16 millimeter films.

E. Directing the efforts of the three dental hygienists with the more detailed supervision than would be possible with a part-time dentist as chief of the division of mouth hygiene.

F. Furnishing dental hygienists' services to children attending the Well Child conferences operated under the supervision of this department as mentioned in our Fund A report.

G. Furnishing dental hygienists' services to county temporary home children of the State where it seems necessary.

H. Furnishing dental hygienists' services as requested by rural schools of the State through the State Board of Education.

I. Enabling the State department to loan the dental hygienists half time or quarter time to the local towns in an effort to have them take over a dental hygienist half time, later three-quarter time and then full time, such work to be done under the supervision of the full time chief of dental hygiene.

The addition of a full time dentist as chief of the division of mouth hygiene and the original dental hygienist requested under Fund B will enable the State department of health to further in the rural sections of the State more mouth hygiene activities than has ever been possible before, to the end that the teeth of the children of Connecticut will be better cared for by their parents and themselves, thus promoting the health of the children, tending to limit absenteeism from school because of dental defects, and thus furthering the likelihood ot a fuller education.

REPORT OF THE COMMITTEE ON PUBLICATION

Charles J. Bartlett, M. D., New Haven
Chairman

Mr. President and Gentlemen of The House of Delegates:

Nothing has been referred to the Committee on Publication and no meetings of the Committee have been held during the past year.

Respectfully submitted,

CHARLES J. BARTLETT
Chairman

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REPORT OF THE COMMITTEE ON THE CLINICAL CONGRESS

Milton C. Winternitz, M. D., New Haven
Chairman

(Read by the Secretary)

Mr. President and Gentlemen of The House of Delegates:

The eleventh Clinical Congress of the Connecticut State Medical Society, held in New Haven, September 17, 18, 19, 1935, repeated the success of former years and was well attended. Six hundred and twenty-seven persons registered which is eight less than the 1934 registration. Of this total five hundred and sixty-one registrants were Connecticut physicians, the largest showing of this group in the history of the Congress. It is therefore gratifying to the Committee to know that interest among the physicians of this State is increasing.

An experiment was inaugurated this year in the form of a commercial exhibit and the total number of persons who visited the exhibit were 1753.

The program was well rounded and the interest in the afternoon session particularly notable. The evening sessions were not as well attended as expected and changes in the type of evening program for the coming Congress it is hoped will interest a larger number of registrants.

The financial status of the Congress remains about the same. The income was $1987.87 — disbursements $2030.57 — leaving a small deficit which was paid out of the general fund. The committees responsible for the eleventh Congress have shown fine cooperation and are to be commended for their excellent work in making this Congress a success.

Respectfully submitted,

MILTON C. WINTERNITZ
Chairman

The President reported that the present Committee, under the new Chairman, Dr. Stanhope Bayne-Jones, was progressing well in preparation for the next Clinical Congress.

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REPORT OF THE COMMITTEE ON COOPERATION WITH YALE UNIVERSITY SCHOOL OF MEDICINE

James Douglas Gold, M. D., Bridgeport
Chairman

Mr. President and Members of The House of Delegates:

This joint committee of the Yale School of Medicine and this Society have had two meetings this past year. The most important subject under discussion referred to Xray charges for compensation cases by the different hospitals throughout the State, the accusation being that insurance companies refer cases to the New Haven Hospital from other districts for Xray pictures, because their charges are less. One specific instance, the insurance company objected to the charge made by one hospital because of the above stated condition. After securing a report from the Yale School Committee at the meeting held April 1, 1936, further discussion revealed that the charges at the New Haven Hospital were not generally less than other institutions throughout the State. The whole situation depends upon the different methods of Bookkeeping in each institution. The final vote referred the subject to the Connecticut Hospital Association, by Dr. Sullivan, a member of our committee.

The facilities of the New Haven Hospital and Yale School of Medicine are still available to the physicians throughout the State as in the past.

It was revealed in our discussions that the New Haven Dispensary is incurring annually a

large deficit. As one means of reducing this deficit the suggestion had been made that the dispensary fee of twenty-five cents per visit be increased to some figure more nearly approaching the cost per visit, which now amounts to approximately eighty-five cents. A representative of the New Haven Dispensary brought this suggestion to the attention of the New Haven Medical Association, and a special committee of the Association met with members of the Board of Directors of the New Haven Dispensary to discuss these matters. At a subsequent meeting of the Association a resolution was adopted withholding approval of an increase in the dispensary fee. Up to the present time no change in this charge has been made, an indication of a willingness to co-operate one with another.

The meetings of the Committee are well attended and worth the effort of bringing our small differences up for discussion, that an amicable understanding may be the final result.

Respectfully submitted,

JAMES DOUGLAS GOLD
Chairman

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REPORT OF THE COMMITTEE ON TUMOR STUDY

Thomas H. Russell, M. D., New Haven
Chairman

Mr. President and Gentlemen of The House of Delegates:

Your committee is able to report considerable progress during the past year. It has held five meetings. Much of its work is being carried on through two sub-committees: A Scientific Committee composed of —

Dr. W. M. Allen, Chairman
Dr. A. W. Oughterson
Dr. D. J. Roberts
Dr. E. C. Weise
Dr. Bradford Walker
Dr. James R. Miller

and a Publicity Committee, composed of —

Dr. Stanley H. Osborn, Chairman
Dr. Philip G. McLellan
Dr. A. W. Oughterson
Dr. E. J. Ottenheimer
Dr. Carl Johnson
Mr. Herbert Hirsche

One important forward step was made in the formation of the Association of Connecticut Tumor Clinics. This association was organized September 18, 1935. Under the by-laws of the organization the chairman of the State Tumor Committee and the secretary of the State Tumor Committee are the chairman and secretary respectively of the Association of Connecticut Tumor Clinics. The purposes of this association are —

1. The exchange of ideas.
2. The standardization of records.
3. The clarification of pathological nomenclature.
4. The improvement and possible standardization of treatment.

The annual meeting of the Association of Tumor Clinics is to be held in conjunction with the Clinical Congress. Its work is being performed by three active committees:

1. Record Committee.
2. Pathology Committee.
3. Therapy Committee.

The chairman of these committees are to be appointed annually by the State Tumor Committee and these chairmen have the power to appoint the members of their own committees. The chairman of the Record Committee is Dr. Philip G. McLellan; the Therapy Committee, Dr. A. W. Oughterson and the Pathology Committee, Dr. Joseph O. Collins.

The Committee on Records, under the chairmanship of Dr. McLellan, has worked out, in cooperation with the State Board of Health, standard record forms to be used by the various tumor clinics in operation in Connecticut. This will be of great value to the Clinics themselves in maintaining good records and will assist the State Board of Health in the survey it is making of the cancer situation in Connecticut. Most of these clinics have already adopted this standard record form.

The sum of $10,000 was voted by the Legislature last year, with the endorsement of your committee, to enable the State Board of Health to carry out a cancer program in Connecticut,

this money to be used from July 1, 1935 to June 30, 1937. In addition the sum of $6,683.00 has been allotted by the Federal Government under Title VI, Public Health Service Section of the Social Security Act, to be used in Cancer activities. These funds allow the State Department of Health to employ a full time physician, a full time assistant tabulator and the necessary funds for travel, incidentals, etc. A very valuable statistical survey of cancer conditions throughout the State is now being carried out, and information hitherto unavailable will soon be on file.

While the treatment of Cancer is a problem for the practicing physicians and existing hospitals of the State, there are certain fields in which the Health Department can function to the greatest benefit in helping to solve this problem. One of these is lay education. With the close cooperation of your committee, the State Department of Health is now carrying out an educational campaign by means of radio, newspapers pamphlets, lectures and monthly bulletins, in conjunction with our Publicity Committee. The best possible spirit of cooperation exists between your committee and the State Department of Health, in working out a comprehensive program.

The National "General Federation of Women's Clubs" under the Chairmanship of Mrs. Carl Illig, Jr., is conducting an educational campaign among the women of the State, another instance of the great interest now being shown in this problem.

It is believed that there has been an unusual amount of interest in the cancer problem among physicians, laboratory investigators and laymen during the past few years.

While some progress has been made recently along chemical lines in cancer research, our conceptions concerning prevention and treatment still remain unaltered. The public must be educated to a knowledge of the common symptoms of cancer, and to a realization that cancer in an early stage is not hopeless, that periodic health examinations are essential to detect a cancer in an early stage, or better yet in a precancerous stage, that temporizing is fatal and that operation or radium or x-ray are the only methods which offer hope of cure.

The Tumor Clinics in Connecticut have increased from seven in 1934 to ten in 1935 and are now seventeen in number.

Respectfully submitted,

THOMAS H. RUSSELL
Chairman Committee on Tumor Study

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REPORT OF THE COMMITTEE ON NARCOTIC DRUG ADDICTION

Arthur Bliss Dayton, M. D., New Haven
Chairman

(Read by the Secretary)

Mr. President and Gentlemen of The House of Delegates:

Late in the last session of the legislature (1935) the "Uniform Narcotic Drug Act" was passed essentially as recommended by the Connecticut State Medical Society. Machinery for its enforcement was not completed until the late fall so that the past few months have only begun to show how it will operate. Since there were no matters before your Narcotic Committee, it has held no meetings during the past year.

The enforcement of the Uniform Narcotic Act was assigned to the Commissioner of Health with Dr. Knowlton in direct charge of the control work. The following memorandum from Dr. Knowlton to Commissioner Osborn indicates the status of this legislation:

"With reference to the information requested by Dr. Dayton in his letter of April 15 it occurred to me that if I make certain comments in memorandum form you can utilize whatever you wish in replying to Dr. Dayton or send him a copy of the memorandum if desired."

"There was some delay in finding a narcotic agent so that actual work in carrying out the provisions of this law did not start till the first of November, 1935. The first important action taken was to cite seven physicians who are drug addicts to appear before the Medical Licensing Board for a hearing the latter part of November. One of these, and an additional physician found to be an addict were cited to appear for a hearing latter part of March but owing to flood conditions the hearing was postponed until the July meeting of the Examining Board."

"One of the duties specified in the Act is the licensing of wholesalers and manufacturers. This matter has been taken up, carefully studied, forms have been prepared and the issuing of li-

censes to all known wholesalers and manufacturers of narcotics has been completed. All told, twenty-three licenses have been issued. The licenses are issued for the fiscal year and will need to be re-issued for the succeeding fiscal year beginning July 1st. One man who wanted to undertake the manufacture of a liniment containing a narcotic was refused a license and if he wishes to promote and sell the liniment he will have to have it manufactured by a licensed firm."

"Mr. Rivard tells me that some time ago he spent half an hour or so, perhaps longer, in the office of the vice squad of the Hartford Police Department talking to a number of the officers in regard to narcotics and drug addiction. Since that time they have picked up a number of peddlers and addicts about Hartford and have really made quite a clean-up here. During the past month or so I believe a dozen or more men have been sent over the road from Hartford and I understand two others have their cases coming up in Superior Court on Wednesday, April 22nd."

"Just now we are checking up on the use of narcotics in a hospital that had a Federal stamp to possess narcotics. This is a private hospital under license by the department and from the information so far obtained it would appear that this hospital could not be approved for the keeping of narcotics under the Uniform State Narcotic Act which defines a hospital as an institution approved for keeping narcotics by this department."

"We contemplate taking up the matter of standards for approving hospitals for keeping narcotics and studying the matter carefully before making recommendations concerning such standards. That is a matter for the future and we contemplate taking it up as soon as possible."

"With reference to legislation, at the next session one matter that is sure to come up is the question of adding an exemption clause to the present narcotic Act. The Act went through the last session of the legislation without the exemption clause added which is contained in the Harrison Narcotic Act and as this point was overlooked at the time by persons vitally interested in the matter, it is sure to come up for consideration at the next session. Personally, I am of the opinion that if the Act could be kept as it is with regard to exemption and fully enforced, it would eventually be a good thing for the public. However, it would require quite an increase in personnel to carry out enforcement procedures and I doubt if such a course of procedure would eventually meet public approval. It might lead to repeal of the Act. It would seem to me therefore that an attempt should be made to take paregoric and possibly another drug or two out of the exempt list and put them in the list that cannot be sold to the public except on a physician's prescription. Paregoric is sometimes used by addicts when they cannot get other narcotics, and it should not be possible for a mother to get paregoric for babies unless prescribed by the physician. While at the Narcotic Bureau in Washington last week, I was told that another drug has been used by addicts to some extent in the western part of the country — but not in the eastern section."

"Mr. Rivard thinks that the sale of hypodermic syringes and needles should be restricted to sale on physician's prescription. This is done in some States at the present time. Mr. Bierne of the Pharmacy Board however says that the law has not worked out so well in Massachusetts and elsewhere where it has been tried. I do not have information upon the matter at present."

"Without very definite information concerning the use of barbiturate drugs and the damage they do, I may not be justified in having an opinion on the matter. My feeling however is that they should be sold only on prescription of physicians. Mr. Bierne of the Pharmacy Board appears to feel that the present plan of restricting their sale to licensed pharmacies is adequate. I suspect the practicability of passing such a law at the next session is the real question at issue. It would probably require a careful study of the subject and a good deal of well directed dissemination of information on the matter to secure its passage over the strong opposition that is sure to develop."

"Mr. Rivard reminds me that a number of proprietary remedies contain Cannabis indica. He thinks that these should be prohibited from sale except on physician's prescription. Such drugs would include bromidia and perhaps a number of others of similar nature."

Three problems probably will come before the Narcotic Committee if it is continued:

1. Modifications of the law or attempts to repeal it should be studied and the Committee should be prepared to act promptly.

2. In the report submitted to the House of Delegates in 1934 this Committee discussed the problem of commitment and rehabilitation of addicts but made no recommendations because of pending proposals of changes having to do with our State Custodial Institutions. This complex side of the Narcotic Act was purposely omitted from the law. It is suggested that the Narcotic Committee should keep in touch with these changes and be prepared to make recommendations at an appropriate time.

3. There seems to be a general feeling by informed observers that legislation prohibiting the use of barbiturates except on prescription would be premature, but this matter should be kept under advisement.

Respectfully submitted,

ARTHUR BLISS DAYTON, M. D.
Chairman

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REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

James Douglas Gold, M. D., Bridgeport
Chairman

Mr. President and Gentlemen of the House of Delegates:

The Committee on Medical Economics of the Connecticut State Medical Society met at New Haven Medical Association Building, 364 Whitney Avenue, New Haven, on Wednesday, May 6th, 1936 at 4:31 P. M.

The Secretary reported the questionnaires completed by the members were still being tabulated, that such tabulation was being made by counties and by size of communities in so far as could be determined from the questionnaires; that it was believed the tabulation could be completed in time for publication in the second issue of the Quarterly Bulletin, as a supplement to the Report of the Committee given to the House of Delegates at the annual meeting.

The Secretary further reported that no hospital or clinic questionnaires had been returned to the secretary's office to date, neither had any report been made of additional clinics, nursing homes, hospitals, etc.

It was stated material progress had been made in Fairfield County on the hospital and clinic questionnaires; that the hospitals had stated it was impossible to give comparable figures, due to the diverse bookkeeping methods in use; that some completed questionnaires were being held by the hospitals pending certain decisions by the Connecticut State Hospital Association, which had looked askance upon the investigation; that part of such attitude was due to the lack of full explanation given when the questionnaires were distributed.

It was further stated that the Stamford Medical Economics Committee had effected a trial arrangement with the city authorities for broad use of the family physician by the indigent rather than town physician care; that, contrary to expectation and belief, the cost of hospital care had not decreased under the plan, but the cost of medicines had been materially lessened so that all parties were satisfied, as the medical care was more adequate.

No reports from the County Committees have been received, it being known that only two or three committees throughout the state are active, for in the smaller communities they have no pressing problems and continue to carry on as in the past.

VOTED, to recommend to the House of Delegates the continuation to completion of the study of medical practice in the State as a fact-finding survey.

VOTED, to recommend to the House of Delegates, in view of the fact that local factors influence the program for the care of the indigent that these matters be referred to local medical organizations, where it appears to properly belong for adjustment, and that the State Society withdraw from further attempts to co-ordinate or standardize procedure throughout the State, with the re-affirming of the policy that patients should be allowed free choice of physicians.

JAMES DOUGLAS GOLD,
Chairman

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REPORT OF THE COMMITTEE ON EMERGENCY UNEMPLOYMENT MEDICAL RELIEF

Stanley B. Weld, M. D., Hartford
Chairman

Mr. President and Gentlemen of The House of Delegates:

During the year just ended your committee has had no meetings nor has it been approached for aid or advice by any of the component County Associations. True, the F. E. R. A. no longer exists, but, pursuant to instructions from the Council in 1934, the W. P. A. has been considered a legitimate object of our interest.

Insofar as your committee is able to ascertain, Emergency Medical Relief Committees have

functioned during the past year in but one County Association. There seems to be a rather uniform opinion in all but this one County Association that no need exists for such a Committee. The Chairman of the Federal Emergency Medical Relief Committee of the Hartford County Association in his annual report to that Association expressed the opinion that some committee should exist in each County Association and in the State Society to which may be referred matters pertaining to the W. P. A. as it affects the medical profession. This function may properly be assumed by one of the standing committees already in existence in these organizations.

In view of the above considerations it is the opinion of your Committee that there is no longer any excuse for the existence of a separate committee in the Connecticut Medical Society known as the Committee on Emergency Unemployment Medical Relief. We recommend that this committee be discharged and that its functions, should any be found to exist, be assumed by some other committee of the Society.

Respectfully submitted,
STANLEY B. WELD,
Chairman

VOTED, to accept the recommendation of the Committee, and to discharge the Committee on Emergency Unemployment Medical Relief.

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REPORT OF THE COMMITTEE ON INFLUENCE OF THE SOCIETY

Michael J. Lawlor, M. D., Waterbury
Chairman

Mr. President and Gentlemen of The House of Delegates:

Your Committee met in Waterbury in December and started studies as to means to use the potential influence of the Society. On January 30, 1936, in reply to a query from the Committee, we received the following communication from the President of the Society:

"I would like your Committee to continue, but you need not do any particular work or make any particular report prior to the Annual Meeting in May. At that time the secretarial situation will have been corrected and we will move from there."

Because of this communication, the Committee has deferred further action.

Respectfully submitted,
MICHAEL J. LAWLOR,
Chairman

The President explained that his advice as quoted in the Report had been given because there was no session of the Legislature to be held, and the adjustment in the secretarial duties under the new plan, adopted at that time, would probably indicate any line of effort for the Committee.

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REPORT OF THE COMMITTEE ON WORKMEN'S COMPENSATION

James Douglas Gold, M. D., Bridgeport
Chairman

Mr. President and Gentlemen of The House of Delegates:

This Committee has held three meetings during the past year, and the following is a summary of the findings and recommendations to date.

Repeated criticism of administration under the Workmen's Compensation Law having come to the attention of the medical profession, The Connecticut State Medical Society appointed a special committee to study the Law and its application, to report to The House of Delegates of the Society at its next meeting (1935).

The Committee reported to The House of Delegates that as a result of its studies it had arrived at the conclusion that there were undesirable features under Compensation; that those undesirable features were not inherent in the Law itself, but appeared to be in procedure under the Law; that they had gradually developed under the Law and had not been recognized or at least had not been corrected; that, as the Law was to protect the working man from disabilities and injuries of occupation, and was to furnish treatment and compensation when injury or disability was suffered, the application of the Law had to be, of necessity, very much concerned with medical judgment and medical practice; that it therefore became a responsibility of the medical profession to take a very active interest in the administration of the Compensation Law and report undesirable features with which it might become familiar.

Apparently there has never been an earnest concerted effort to bring together the various groups concerned in the administration of the Compensation Law to study procedure, to determine if there were undesirable practices under procedure, and to bring about cooperative efforts at correction, if such undesirable practices were discovered.

In order that there might be facilities, so far as the medical group was concerned, for cooperating with the other interested groups, the Special Committee made specific recommendations to The House of Delegates and the House adopted the recommendations made, as printed on Page 109 *Proceedings*, 1935.

The Council appointed the five District Committees, and it was later determined that the Chairman of each District Committee should contact the Commissioner, informing him what provisions the medical profession had made for co-operation in maintaining the best possible standards of medical procedure under the Compensation Law. This individual conference with the Commissioner would avoid any appearance of attempted domination or dictation, and would serve to emphasize the desire for cooperation or any assistance which might be rendered by the Committee. The same presentations should later be made to representatives of the other groups, i.e., the employees, the employers, and the insurance carriers; possibly the self-insured might also be approached.

Because of difficulties in making progress with so large a Committee, it was recommended and adopted that the five Chairmen of the District Committees be considered a permanent Sub-Committee to outline the details of a program of procedure, and submit its recommendations to the whole Committee for discussion before formal adoption.

It was voted:

1. To submit a questionnaire to each member of The Connecticut State Medical Society: to determine whether the individual wishes to engage in compensation practice; if so, to submit his qualifications for and the character of the work he wishes to do; and to include such other matters as may be considered necessary;

2. To submit the returned completed questionnaires to the proper District Commitees that have supervision over the district in which the several individuals wish to do compensation practice, for determining whether certification can be granted;

3. If the Council shall approve this plan, the Sub-Committee will proceed with the formulation of the questionnaire, which will be submitted to the whole State Committee on Workmen's Compensation for approval before distribution to the membership of the State Society.

The Committee feels that some progress has been made, and the outlines for the future work of the Committee should show satisfactory results.

Respectfully submitted,

JAMES DOUGLAS GOLD
Chairman

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REPORT OF THE COMMITTEE ON PHYSICIANS' TELEPHONE LISTINGS

Edward J. Ottenheimer, M. D., Willimantic
Chairman

Mr. President and Gentlemen of The House of Delegates:

The Committee on Physicians' Telephone Listings met on Monday, December 16, 1935, at the Hotel Bond in Hartford. Present were Dr. Charles Larkin, Dr. John Wentworth, and Dr. Edward Ottenheimer, Chairman.

The object of this meeting was to consider and make recommendations upon Resolution No. XII of 1935, presented by Dr. Arthur B. Landry, Hartford, to The Connecticut State Medical Society. Resolution No. XII reads as follows:

"*Whereas*, the Southern New England Telephone Company maintains a classified directory of physicians and surgeons, and

Whereas, in fact special listings in this directory constitute a form of advertising, and

Whereas, such advertising is in violation of the medical code of ethics; now, therefore, be it

RESOLVED: That a committee be appointed by the President to study distinguishing and special listings of physicians in telephone directories."

After due deliberation, the Committee agreed to advise:

1. That special listings in telephone directories are ethical provided that the listings are regulated by Listing Committees from each City Medical Society, or by Listing Committees from County Medical Associations, or by the Committee on Physicians' Telephone Listings of the State Medical Society, when a candidate for listing makes appeal from the ruling of the City or County Society.

(a) The Committee suggests that in accepting special listings, consideration be given to membership in organizations having to do with that particular specialty, such as the American Ophalmological Society, American College of Surgeons, American College of Physicians, et cetera.

(b) That it should not be necessary to designate that members listed are members of The Connecticut State Medical Society.

2. That listing should be limited to well recognized specialties, or combination of specialties, such as Obstetrics and Gynecology; Eye, Ear, Nose and Throat; Genito-Urinary, et cetera.

3. That the listing "Physician and Surgeon" be disallowed. A doctor is either a physician or surgeon, and if he is both he is to be designated simply by M. D.

4. That all listings should be in the same type of print, both as to size and character.

5. That it would be ethical to list office hours, if the physician so desired.

6. That while it does not come under the jurisdiction of this Committee, it might be of some advantage for the listing committees referred to above to make similar suggestions regarding the matter of office signs.

Respectfully submitted,
EDWARD J. OTTENHEIMER,
Chairman

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REPORT OF THE COMMITTEE ON MEDICAL EXPERT TESTIMONY

Samuel C. Harvey, M. D., New Haven
Chairman

Mr. President and Gentlemen of The House of Delegates:

The President requested that this Committee should not proceed with any studies, inasmuch as he himself was making a study of the situation and would be prepared to make recommendations to the Society directly. Therefore the Committee has not met, and such preliminary material concerning this subject as had been collected was turned over to the President for his information.

Respectfully submitted,
SAMUEL C. HARVEY,
Chairman

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REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Walter R. Steiner, M. D., Hartford, and George Blumer, M. D., New Haven, Delegates

Mr. President and Gentlemen of the House of Delegates:

Your Delegates returned just four days ago from the meeting of the American Medical Association. The time, consequently, is short to prepare a satisfactory account of the meeting of The House of Delegates. Four sessions were held, on Monday, Tuesday and Thursday of last week. The first meeting considered the reports of Officers and Committees.

The Secretary's Report announced an increase in the enrollment of members as the number is now 103,241, or an increase of over 4,000 from last year, while the Fellowships of the Association, or those who paid the Fellowship dues of $7.00 which includes the subscription to the Journal, had increased to over 63,000. He noted an increase in the number of officers of the state associations, other than secretaries and editors, who attended the Annual Conference of Secretaries of the constituent state medical associations. More state associations than last year have been visited by officials. He urged that the jurisdiction of component societies and constituent associations in respect to membership be clearly and definitely maintained. He desired the consideration of the status of physicians located near state lines as often they desired to join a state association in a closely adjoining state.

The Trustees Report showed an increased circulation of the Journal of the American Medical Association, and we were pleased to note that we tied with Arizona for second place as to the number of physicians in the states who received the Journal, New Jersey coming first with 71%

while we, with Arizona, were 65%. The special journals were printed at a deficit, with the exception of the Archives of Otolaryngology and the Archives of Ophthalmology, the loss sustained being $28,004.70. The deficit was also seen in the publication of Hygeia, although its circulation had increased as well as its influence in the lay public. The Library had extended the scope of the periodical loans and packing library service, while the Quarterly Cumulative Index Medicus, although continued, represented a loss over the amount of income received of $44,439.84. The Trustees announced the preparation of the 14th edition of the American Medical Association Directory. The Association building was being enlarged by two stories and a stone front added, the interior now being able to provide a good assembly room and increased facilities for the various departments.

The Council on Pharmacy and Chemistry had been very active during the year. It had warned the profession against the use of dinitrophenol until adequate clinical evidence was available to show its harmlessness. They had also endeavored to have standardized and labeled liver and stomach preparations for use in the treatment of pernicious anemia, and had called attention to the indescriminate use of vitamin therapy. This, with other general and specific investigations, had taken up their time, some of which had been devoted to the investigation of the market supply of catgut sutures and to the preparation of 32 articles on glandular physiology and therapy which were later published in book form. They likewise caused to be published two articles on nonspecific protein therapy. They shall study further the confused vitamin situation by the formation of a co-operative committee on vitamins.

The Council on Physical Therapy had been active during the past year, and had caused to be prepared sixteen articles on that and related subjects which have been published in the Journal.

The Bureau of Legal Medicine and Legislation had been busy considering the Federal Health Insurance, the Medical and Hospital Care for Employees on Emergency Relief Rolls, Veteran Legislation, the Reorganization of the Federal Narcotic Service as well as other matters. The state legislation had also demanded their attention, especially the bills for health insurance in the legislatures of six states and the Workingmen's Compensation Act in New York. The legislation pertaining to contraception had also been considered and the excellent committee to consider this subject under the leadership of Dr. Carl Davis of Milwaukee had been continued. Dr. Davis spent his additional time last year in studying it, and although unwilling at first to consent to head the committee in its continued thorough study of this subject, he finally agreed to do so.

The Bureau of Medical Economics had been busy during the year considering the distribution of physicians, the medical relations under the workmen's compensation, care of the indigent sick, group hospitalization, the relation of medical ethics and medical economics and state medicine. They plan to revise the pamphlet on the medical relations under the Workmen's Compensation and Care of the Indigent Sick and to revise the pamphlet on the collecting of medical fees, as well as other matters.

The Bureau of Health and Public Instruction has had considerable expansion in their work, their radio program being well received. Dr. Frank Clancy of Seattle, Washington, has succeeded Dr. Arthur J. Cramp in the Bureau of Investigation, which will continue its effective work in the study of nostrums and quackery.

The Bureau of Exhibits has continued its work and the excellent exhibits of this year have fully repaid their labors.

Increasing labor has been demanded of the Committee on Foods, which is functioning in an excellent manner.

These then, have seemed to your Delegates the high points in the Trustees Report which takes up about 100 pages of the space in the handbook issued for the members of the House of Delegates.

The Treasurers Report showed $2,090,414.69 as listed as reserve investment as of Dec. 31st, 1934, while the interest on the investments amounted to $141,063.44, showing an invested and uninvested reserve of $2,237,478.13. The David Memorial Fund amounted to $6,909.16. The subscriptions paid in advance amounted to $103,765.15, while the total operating expenses were $888,799.50.

In the Report of the Judicial Council, they called attention to the necessity of closely following the proper procedure in the conduction of trials based on charges against members of component and constituent organizations, and of the necessity of coordinating governing by-laws of state associations and their component societies. They also considered the ethical principle underlying cult practice in its relation to medical practice and were "of the opinion that it is just as unpractical to suggest that the small percentage of cult practitioners will through close relationship with the membership of our profession be raised to our professional standards as it is to expect the few rot-speckled apples in the apple barrel to become whole because of the preponderance of sound ones. We believe in continuous, complete separation between the true and specious physician." Group hospitalization and individual hospital plans were also considered. Whether these schemes are or are not financially or economically sound they considered was not the problem of the Association, but it was the Association's business to see that the furnishing of medical service is not included in the sale of insured hospital accommodation.

The Council on Medical Education and Hospitals Report has already been published in the recent number of the Journal of the American Medical Association, so it need not be considered, while the work of the Council on Scientific Assembly has been shown in the published program of the Kansas City Meeting.

Two sessions were taken up with the Report of the Reference Committees on the various reports read at the first session. The second session on Tuesday was an Executive Session, and concerned chiefly contraception. On Thursday the chief order of business was the election of officers. There were four candidates for the position of President: Dr. John H. J. Upham of Columbus, Ohio; Dr. Charles E. Humiston of Chicago; Dr. Isaac A. Abt of Chicago; and Dr. Wells P. Eagleton of Newark, New Jersey. By the first ballot the names of Dr. Humiston and Dr. Eagleton were eliminated, while the second ballot showed Dr. Upham had 103 votes and Dr. Abt 58, so Dr. Upham was declared elected. For the Vice-President, Dr. Charles E. Humiston, Dr. Charles G. Heyd and Dr. Isaac A. Abt were nominated, but Dr. Abt's name was subsequently withdrawn and the voting showed Dr. Heyd 104 votes to 56 for Dr. Humiston, consequently Dr. Heyd was elected Vice-President. Dr. Thomas S. Cullen of Baltimore was reelected without opposition a Trustee for five years.

The following positions were then filled by the nomination of the President, Dr. J. Tate Mason. For the Judicial Council, Dr. Walter F. Donaldson of Pittsburgh, Dr. Lloyd Noland of Fairfield, Alabama and Dr. Edward R. Cunniffe of New York; For the Council on Medical Education and Hospitals, Dr. Frederick W. Rankin of Lexington, Kentucky; and for the Council on Scientific Assembly, Dr. J. C. Flippin of University, Virginia. Atlantic City was chosen as the meeting place for the 1937 Annual Session.

The Meeting was saddened by the serious illness of the President-Elect, Dr. J. Tate Mason of Seattle, who became President at this time. He had had his leg amputated a short time before and was in a critical condition.

6,749 doctors had registered for the four days, and the meeting was successful in every respect.

Your junior Delegate, Dr. George Blumer, was Chairman of the Reference Committee on Medical Education.

Respectfully submitted,
GEORGE BLUMER,
WALTER P. STEINER,
Delegates

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REPORTS OF DELEGATES TO STATE SOCIETIES

To Massachusetts: Milo P. Rindge, M. D., Madison, and Charles T. LaMoure, M. D., Mansfield Depot, Delegates.

Mr. President and Gentlemen of The House of Delegates:

As a Delegate from the Society it was my privilege to attend the meeting of The Massachusetts Medical Society which was held at the Hotel Statler, Boston, on June 3, 4 and 5, 1935.

Because of the number of rooms having large seating capacity that were available, it was possible to present a program of much greater variety than is usual at state society meetings, and this opportunity was fully utilized, many

noteworthy papers and demonstrations being presented and extensively discussed.

The large ballroom with its galleries and other small rooms were used for commercial and educational exhibits, and one room was used to display the hobbies of the members of the Society, many fine examples of their work in the arts and crafts being shown.

Several interesting clinics were held at hospitals.

The entertainment of the ladies, as well as of all others attending, was carefully planned and carried out.

An especially instructive and enjoyable period of three days was spent and thanks are hereby given to the members of this Society for having allowed me to represent them in this capacity.

Respectfully submitted,
MILO P. RINDGE,
Delegate

Dr. LaMoure planned to attend this meeting, but submitted no report.

Dr. Arthur B. Landry's report of attendance at the 1935 meeting of The New Hampshire Medical Society was published in the 1935 *Proceedings*.

Dr. Michael J. Lawlor, Waterbury, and Dr. Murray were unable to attend the meetings of The Rhode Island Medical Society as Delegates from the Society.

Drs. Kinney and Sweet were unable to attend the meetings of The Maine Medical Society as Delegates from the Society.

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REPORTS OF DELEGATES TO SPECIAL SOCIETIES

To The Connecticut State Dental Association:

Mr. President and Gentlemen of The House of Delegates:

This is to inform you that your three Delegates, all of Stamford, attended the Seventy-second Annual Meeting of the Connecticut State Dental Association, an affiliate of the American Dental Association, held in Stamford, April 15, 16 and 17, 1936. We conveyed to them greetings from our Society and best wishes for a successful session.

The meetings were held in the auditorium of the new Stamford High School. The program was a very full one and all of the sessions were well attended. On Thursday evening, the annual banquet and entertainment was held at the Stamford Yacht Club, and it was a very successful affair.

Respectfully submitted,
FRANK H. BARNES,
OLIVER L. STRINGFIELD,
WILLIAM T. GODFREY,
Delegates

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To The Thirty-Second Annual Congress on Medical Education, Medical Licensure and Hospitals.

Daniel C. Patterson, M. D., Bridgeport
Delegate

Mr. President and Gentlemen of The House of Delegates:

The Thirty-Second Annual Congress on Medical Education, Medical Licensure and Hospitals was held in Chicago on February 17th and 18th, 1936. In spite of considerable snow and subzero weather there was a large attendance.

In the section on Medical Education the speakers laid stress on the necessity of culture and understanding on the part of the physician, as well as the knowledge of his profession, and that we should be more concerned with the quality of medical graduates, than quantity. Some speakers were of the opinion that the number of graduates should be further restricted, while others saw no danger of over-production, pointing out that the capacity of society to absorb well-trained physicians was unknown.

Emphasis was placed on the need of teachers with enthusiasm and initiative, and the importance of a student being informed of his social obligations, and it was suggested that this should be a part of his premedical education.

Doctor Cutter reported on the survey of medical schools and said that the investigators had met with great courtesy and cooperation on the part of the schools; that the work had progressed steadily and it was expected that much good would come from it. He pointed out that it was not the function of the survey to curtail the number of students in any way. He felt that in some cases the number of students admitted to certain schools had greatly exceeded the capacity of the medical equipment, and that increase in

the student body should not be made without corresponding increase in equipment. He felt that better methods for evaluating the graduate must be devised.

A symposium was held on the teaching of Obstetrics, in which Doctor Kosmak drew attention to the percentage of operative proceedures on private patients as compared to the number on general service cases. His statistics were taken from reports of several large hospitals. Doctor Reed stressed the value of work on the mannikin and the need of practical experience for the student.

President Metzger's Presidential address was on the "Art of Medicine." He felt that the old preceptor system had an advantage in that a young man entering the profession had an opportunity to see what he was getting into, while today a student is well along in his course before he comes in contact with sick people, and at that time may find that he is miscast. He remarked that medical knowledge in itself does not insure success. The Art of Medicine requires that the physician enter into the lives of his patients. He pointed out that there was a difference between knowledge and wisdom. He thought the time was coming when examining Boards would lay less stress on scientific knowledge and much more on the mental, moral and social adaptability of the applicant. To quote: "All recognized medical schools furnish ample scientific training to assure reasonable service to the sick", and he thinks that we should examine their mental fitness, and then possibly give them a provisional license for five years. At the end of that time they should be re-examined for a permanent license.

Several protests were made against the elimination of two-year schools, but as the committee had already changed its decision not to recognize these schools after 1938, the question is at rest for the present.

There are ten such schools, namely, Dartmouth; W. Va.; N. C.; Wake Forest; Ala.; Miss.; S. D.; N. D.; Utah, and Mo. The proponents point out, among other advantages, that most of their students returned to their native state to practice, and if this source of supply is shut off there would be a real shortage of doctors in those communities.

The difficulty of getting any evidence of value in the case of drug addicts seemed to be general in all localities. In some states the Licensing Board had to act as prosecutors. There was no specific way to handle such cases, and most of them were carried over from year to year.

In Texas the money received from registrations is being used to enforce medical practice acts, and in spite of the size of the State, the enforcement has been quite successful.

Doctor Rappeleye thought licenture should be on the basis of training and not on examination, and remarked that we were normally fifty to sixty years behind the educational standards of European countries. I noticed, however, that considerable stress was laid on the necessity of carefully scrutinizing foreign medical credentials.

The creation of more qualifying boards for specialties was announced, and within a year there will probably be twelve such boards, including a board for general surgery.

Doctor James N. Baker of Montgomery, Alabama, was elected President of the Federation for the coming year.

Respectfully submitted,

D. C. PATTERSON

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REPORT OF THE COMMITTEE ON ARRANGEMENTS

Thacher W. Worthen, M. D., Hartford
Chairman

Dr. Worthen called attention to the various events as announced in the program.

All reports were ordered accepted and filed, except as noted.

Recommendations of the Council, in addition to those distributed to the members of the House, were read; resolutions were introduced.

The House of Delegates adjourned at 1:15 P. M., until Thursday, 21, May 1936, at 10:30 A. M. (Daylight Saving Time).

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SECOND SESSION

The second session of The House of Delegates during the One Hundred and Forty-fourth Annual Meeting of The Connecticut State Medical Society was held at The Hunt Memorial Build-

ing, 38 Prospect Street, Hartford, May 21, 1936, at 10:30 A. M. (Daylight Saving Time). The roll of Officers and Delegates was as follows:

President
Thomas P. Murdock, Meriden

Secretary
Charles W. Comfort, Jr., New Haven

Treasurer
Creighton Barker, New Haven

Council
Fairfield County: James Douglas Gold, Bridgeport, Chairman.
Hartford County: H. Gildersleeve Jarvis, Hartford.
Litchfield County: Charles H. Turkington, Litchfield.
Middlesex County: Roy L. Leak, Middletown.
New Haven County: Henry L. Swain, New Haven.
New London County: Charles G. Barnum, Groton.
Tolland County: Absent (illness).
Windham County: Robert C. Paine, Thompson.

Elected Delegates

Fairfield County:
Frank H. Barnes, Stamford.
Alfred C. Henderson, Stamford.
Don J. Knowlton, Greenwich.
H. Bertram Lambert, Bridgeport.
R. Harold Lockhart, Bridgeport (by Berkley M. Parmelee, Bridgeport).
Bronislaw L. Smykowski, Bridgeport.
William J. Tracey, Norwalk.
Absent: D. Chester Brown, Danbury.
J. Stanley Nickum, Bridgeport.

Hartford County:
David M. Caldwell, South Manchester.
Samuel J. Chernaik, New Britain.
David Gaberman, Hartford.
Harvey B. Goddard, East Hartford.
William H. Hanrahan, Bristol.
Arthur B. Landry, Hartford.
Benedict B. Landry, Hartford (by Benjamin B. Robbins, Bristol).
Vincent F. Mendillo, New Britain.
D. C. Y. Moore, South Manchester.
William T. Morrissey, New Britain.
Richard A. Outerson, Hartford.
Ralph A. Richardson, Bristol, County President.
Maurice T. Root, West Hartford, County Vice-President.
Stanley B. Weld, Hartford, County Secretary.

Litchfield County:
Harry B. Hanchett, Torrington.
W. Bradford Walker, Cornwall, County Secretary.

Middlesex County:
Harry S. Frank, Middletown.
Julius H. Grower, Middletown.

New Haven County:
Charles J. Bartlett, New Haven.
Stanhope Bayne-Jones, New Haven.
Frederic C. Bishop, New Haven, County President.
Patrick J. Brennan, Waterbury.
Abe S. Brown, Waterbury (by William J. Dennehy, New Haven.
John S. Dye, Waterbury, County Vice-President.
William J. H. Fischer, Milford.
Cole B. Gibson, Meriden.
Willis E. Hartshorn, New Haven.
Carl W. Henze, New Haven.
James D. McGaughey, Wallingford.
M. Heminway Merriman, Waterbury (by Ralph A. McDonnell, New Haven).
Louis H. Nahum, New Haven.
Milo P. Rindge, Madison.

New London County:
Albert C. Freeman, Norwich.
George H. Gildersleeve, Norwich, County Secretary.
Isadore Hendel, New London.
Richard M. Starr, New London.

Tolland County:
Charles T. LaMoure, Mansfield Depot.

Windham County:
Cecil R. Garcin, Danielson, County Secretary.
Absent: Kenneth K. Kinney, Willimantic.

The Officers, Delegates and Committees were elected as voted by the Council for recommendation to The House of Delegates (see report of Chairman of Council, First Session, House of Delegates) with the following exceptions:

For Delegates to the Connecticut State Dental Association:

Thacher W. Worthen, Hartford.
Stanley B. Weld, Hartford.
Ralph A. Richardson, Bristol.

Added to the Committee on National Legislation:

The Legislative Secretary of the Society.

The Committee on Tumor Study changed to read:

Charles L. Larkin, Waterbury, Chairman.
Wilmar M. Allen, Hartford.
Samuel C. Harvey, New Haven.
Philip G. McLellan, Hartford.
H. LeBaron Peters, Bridgeport.
Daniel Sullivan, New London.
Milton C. Winternitz, New Haven.
The State Commissioner of Health.

Committees, as nominated, declared elected.

VOTED, to discharge the Committee on Influence of the Society.

The Council recommended to The House of Delegates that the duly elected Delegates to the New England Medical Council, whose terms have not expired, be discharged, and that no such Delegates be elected until required, the New England Medical Council having been discontinued through refusal of one State Medical Society to financially participate.

VOTED, to accept the recommendation of the Council, and to discharge the Delegates.

The Council recommended to The House of Delegates that the vote of the 1929 House of Delegates, whereby the Committee on the Clinical Congress was to be constituted in a specified manner (page 69, *Proceedings*, 1929), be amended by the addition to the Committee of "The Secretary on Scientific Work."

VOTED, to adopt the recommendation of the Council, and to so amend.

The Council recommends to The House of Delegates that the Committee on the Clinical Congress, for the term, October 1, 1936 to September 30, 1937, shall consist of:

Stanhope-Bayne-Jones, New Haven, Chairman.
Herbert Thoms, New Haven, Secretary.
Charles E. Sanford, New Haven, Treasurer.
The President of the Society.
The Chairman of the Council.
The Secretary of the Society.
The Secretary on Scientific Work.
The Secretaries of the component County Medical Associations.
Such other Members as the Committee shall appoint.

VOTED, to accept the recommendation of the Council, and to declare the Committee on the Clinical Congress, as nominated, duly elected.

A recommendation of the Council to discharge and to discontinue the State Society's Committee on Emergency Unemployment Medical Relief was withdrawn, action to discharge the Committee having been taken during the first session of The House of Delegates, in compliance with a recommendation contained in the Report of the Committee.

The Council recommended to The House of Delegates that the nominations for Honorary Membership, made at the 1935 Annual Meeting by the Committee on Honorary Members and Degrees and tabled for one year in accordance with the By-Laws, be taken from the table.

VOTED, to accept the recommendation of the Council, and to take from the table the duly made nominations for Honorary Membership.

The Council recommended to The House of Delegates that Colonel Charles Franklin Craig, United States Army, Retired, Professor of Tropical Medicine, Tulane University of Louisiana School of Medicine, New Orleans, Louisiana, be elected an Honorary Member.

VOTED, to accept the recommendation of the Council, and to declare Colonel Charles F. Craig, unanimously elected to Honorary Membership in The Connecticut State Medical Society.

The Council recommends to The House of Delegates that the nomination of Professor Russell H. Chittenden, M. D. (Hon.) of New Haven, Connecticut, be laid upon the table for one year, pending possible amendment of the By-Laws to authorize procedure which will permit his desired election to Honorary Membership.

VOTED, to accept the recommendation of the Council, and to lay upon the table for one year

the nomination of Russell H. Chittenden of New Haven for Honorary Membership.

The Council recommends to The House of Delegates that the Council shall hereby be directed to consider amending the By-Laws of the Society to provide for suspension in exceptional circumstances of any By-Law, except those relating to business procedure; and, if such consideration be favorable, to prepare such amendment for action by The House of Delegates at the next Annual Meeting.

VOTED, to adopt the recommendation of the Council, and to so direct.

The Council recommended to The House of Delegates that the assessment for the fiscal year 1937 shall be $5.00 per capita.

VOTED, to adopt the recommendation of the Council and to lay a tax for the fiscal year 1937 or $5.00 per member.

The Council recommends to The House of Delegates for adoption the following proposed budget, pro rated for the current fiscal year, in full for the next fiscal year, submitted by the Council acting as the Finance Committee in accordance with the By-Laws, pending formation of the Budget Committee provided for by the Society's action at the Special Meeting of January 16, 1936:

Estimated Income from Dues only..		$7,125.00
Estimated Expenses:		
Administrative Secretary.....	$ 600.00	
Legislative Secretary.....	250.00	
Secretary on Scientific Work.....	300.00	
Stenographer.....	1,500.00	
Quarterly Bulletin, including printing and distribution.....	1,400.00	
Office Rent.....	750.00	
Office Expenses, telephone, stationery and postage.....	400.00	
Office Sundry Account, travel, etc..	300.00	
Expenses of Legislative Committee	600.00	
Expenses of Annual Meeting, programs, postage, etc.....	250.00	
Expenses, Delegates to American Medical Association.....	200.00	
		$6,550.00
Unexpended Balance.....		$ 575.00

VOTED, to accept the recommendation of the Council, and to adopt the proposed budget for the balance of the fiscal year 1936 and for the fiscal year 1937.

The Council recommended to The House of Delegates, pursuant to Resolution No. XIII of the 1935 House of Delegates, entitled "Concerning the Handling of Funds of the Society," that the funds of the Society should not be placed with a fiduciary company to act as Treasurer of the Society, since such procedure is considered unnecessary expense for the amount of work involved or to be expected under the new secretarial organization.

VOTED, to amend the recommendation of the Council by inserting the words "at present" after "not," so that the recommendation would read: "* * *, that the funds of the Society should not at present be placed with a fiduciary company to act as Treasurer of the Society, * * * * *." This amendment was desired in order not to complicate any future action it might seem desirable to take.

VOTED, to adopt the recommendation of the Council, as amended.

The Council recommended to The House of Delegates that the next Annual Meeting of the Society shall be held in Bridgeport, on Wednesday and Thursday, May 19, 20, 1937, dates tentative, depending upon the dates for the Annual Session of the American Medical Association.

VOTED, to adopt the recommendation of the Council.

The Council recommended to The House of Delegates that The House of Delegates does hereby approve of the deletion made by the Editor of the 1935 *Proceedings* of the words "and limitations", as contained in the Resolution voted by The House of Delegates at the 1935 Annual Meeting authorizing the formation of the Society's Committees on Workmen's Compensation, request for said deletion having been made by the Chairman of the former Committee on Free Choice of Physician in Compensation Cases.

VOTED, to accept the recommendation of the Council, and to approve the deletion as made.

The Council recommended to The House of Delegates the adoption of the recommendations contained in the Report of the Committee on Medical Economics as affirmed procedure for the State Society, namely:

(1) that the study of medical practice in the State as a fact-finding survey be continued to completion;

(2) that, in view of the fact that local factors influence the program for the care of the indigent, these matters be referred to local medical organizations, where they appear to properly belong for adjustment, and that the State Society withdraw from further attempts to coordinate or standardize procedure throughout the State, with the re-affirming of the policy that patients should be allowed the free choice of physicians.

VOTED, to adopt the recommendation of the Council, and to so affirm the procedure.

The Council recommended to The House of Delegates:

(1) that the action regarding section or special group meetings, taken by the 1928 House of Delegates, be re-affirmed; and

(2) that the Section on Eye, Ear, Nose and Throat be requested to comply with the directive of The House of Delegates and to hold its Section Meeting on the first day of the Annual Meeting during the time especially allotted for Section Meetings.

VOTED, to accept the recommendation of the Council, and to so re-affirm and request.

The Council recommended to The House of Delegates that the Administrative Secretary of the Society be charged with the effort to collect and preserve the records of the Society as suggested in the 1935 Report of the President (page 9, *Proceedings*, 1935).

VOTED, to accept the recommendation of the Council, and to so charge the Administrative Secretary of the Society.

The Council recommended to The House of Delegates, in accordance with the recommendation contained in the Report of the Committee on Public Health, that The House of Delegates, in the name of The Connecticut State Medical Society, shall hereby record its approval of and recommend procedure in accordance with the Act of the 1935 Legislature (Section 929c, Cumulative Supplement to the General Statutes, January Sessions, 1931, 1933, 1935, State of Connecticut), whereby Sanitary Districts with full-time medical Health Officers may be formed; and further shall direct that a copy of this approval and recommendation be transmitted to the State Commissioner of Health for use in efforts to secure the formation of such Sanitary Districts.

VOTED, to adopt the recommendation of the Council, and thereby, in the name of The Connecticut State Medical Society, to record approval of and to recommend procedure under the Sanitary Districts law, and to further approve use of this approval and recommendation by the State Department of Health.

The Council recommends to The House of Delegates, in accordance with the recommendation contained in the Report of the Committee on Public Health, that The House of Delegates shall charge the Committee on Public Health with the formulation of a detailed specific directive for the handling of accident cases to prevent additional further injury from the process of transportation, to include standard fracture equipment for all ambulances or vehicles regularly used as such; that such directive be submitted for approval to the Council; that, upon approval by the Council, such directive be referred to the Committee on Public Policy and Legislation for transmittal in the name of the Society, to police, press, and other agencies, in such manner as will make most effective the sense of this recommendation.

VOTED, to accept the recommendation of the Council, and to so charge the Committee on Public Health.

The Council recommended to The House of Delegates, that The House of Delegates shall request the Council to consider the draft of "Standing Orders and Policies for Public Health Nurses," prepared by the Connecticut State Department of Health and presented through the Committee on Public Health; and further, that The House of Delegates shall authorize the Council, when it considers such approval may be given, to officially approve in the name of the Connecticut State Medical Society said "Standing Orders and Policies for Public Health Nurses," and to transmit such approval to the State Commissioner of Health for use therewith.

VOTED, to accept the recommendation of the

Council, and to so request and authorize the Council.

The Council recommended to The House of Delegates:

That the general policy contained in the recommendations of the Special Committee on Physicians' Telephone Listings be approved:

That this Committee be continued and further charged as follows:

to formulate a definite plan to govern physicians' telephone listings in Connecticut, to include specialties to be recognized, requisites for each specialist listing, and all details for control of such listings, to include sample listings;

to determine by conference with telephone companies operating in Connecticut —

(1) whether or not such plan will be acceptable to them and will be strictly adhered to, with reference to the city, county or state societies' committees of both members and non-members desiring specialist listings;

(2) that said telephone companies will assume all responsibility for soliciting such possible listings and collecting payment therefor;

(3) statement of the additional cost to the physician for such listing; and

(4) such other factors as may occur to the Committee during its preparation of the detailed plan, which will ensure thorough understanding by the membership of the State Society and the telephone companies, to perfect the "gentlemen's agreement" to be thus entered upon;

to prepare all data for approval by the Council and subsequent distribution to the members, through the Office of the Secretary or through the Quarterly Bulletin, in order that consideration and desired action thereon may be taken by each city and county association, to approve and adopt, to establish necessary committees or designate existing committees to assume these functions, and any other measures considered necessary to make mutually binding cooperation;

to submit such plan and agreement to the Council before the Annual Meeting in 1937.

Dr. William J. Dennehy, New Haven, Delegate from New Haven County, objected: in that the recommendation planned standardizing specialties and specialists, with the difficulties of prescribing qualifications and securing acceptance and adherence by those considering themselves specialists; in that the establishment of a specialist business directory; where any person could look for any specialist he might think he needed, was contrary to good medical practice, which required competent general medical diagnosis with reference to a specialist when required.

The motion to adopt the recommendation of the Council was lost.

VOTED, to refer to the Council for further consideration the matter of Physicians' Telephone Listings as contained in the Report of the Committee and the recommendation of the Council.

The Council recommended to The House of Delegates for adoption the following resolution, submitted in compliance with the expressed desire of the 1935 House of Delegates that the Council consider a plan to carry out the intent of Resolution No. VII, tables for one year (page 113, *Proceedings*, 1935).

RESOLVED: that no action be taken at this time upon Resolution No. VII of the 1935 Annual Meeting;

that said Resolution, as evidencing the desires of certain members of the Society, be transmitted for due consideration to the Committee on Public Policy and Legislation;

that, with the experience to be gained through the new secretarial organization adopted by the Society, recommendations regarding such provisions as would be made by said Resolution No. VII be submitted to The House of Delegates by the Committee on Public Policy and Legislation with its next annual report.

VOTED, to adopt the recommendation of the Council, and to so refer the resolution.

Upon request, Resolution No. VII, 1935, was read as follows:

"Resolved: that the Council present at the next annual meeting such changes in the By-Laws as will be necessary to effect the substance of the following resolutions:

"Resolved: That the County Associations shall hold a winter meeting during the last week of January of each legislative year so that each

County Association shall learn from its Legislative Committee the nature of the bills pending before the Legislature and that each County Association shall take action on each bill and instruct its delegates as to the Association's desire regarding each bill, so that then the delegates may carry out the desire of the County Associations in The House of Delegates.

"Resolved: That The House of Delegates of The Connecticut State Medical Society shall hold a special meeting within the first five days of February of each legislative year to learn the desire of each County Society with reference to each bill pending before the Legislature, and take action on these bills in order that the Committee on Public Policy and Legislation of the State Society or its representatives at the Legislature shall know what the opinion and desire of the State Society, as a whole, is in respect to each bill."

Dr. D. C. Y. Moore, South Manchester, Delegate from Hartford County, introduced Resolution No. I, to provide for a Special Committee of eight members, one from each County, to be appointed by the President, to present to the State Commission investigating the subject data regarding conditions which affect physicians by failure to receive payment for treating persons injured in automobile accidents, due to lack of required financial responsibility on the part of drivers and owners of motor cars, to offer remedial suggestions, and to continue through the next session of the Legislature.

The Council had amended the Resolution as presented to refer it to the Committee on Public Policy and Legislation, an already existing Committee and a proper one to receive such a directive and to carry it out, constituted as desired to include representation from each County, and a standing committee which would be functioning during the next session of the Legislature. Dr. Moore stated he had no objection to such disposition of the Resolution, provided action was instituted and representation was made in the name of the Society to the Special Commission; that the hospitals had made strong representation; but that, except for a few individuals, no medical information was available for the Commission; that the Commission was expecting to report to the Governor about July first. Dr. Creighton Barker, New Haven, stated that the New Haven County Medical Association, through a special committee, had investigated the subject and had reported medical conditions to the Commission.

VOTED, to adopt an amendment offered by Stanley B. Weld, Hartford, to insert "on or before June 25th."

VOTED, to adopt the resolution as amended, as follows:

"*Whereas*, a special State Commission is studying the present financial responsibility act as outlined in Section 1609 of the General Statutes, as amended; and

Whereas, such information as this Commission has obtained from physicians lacks the authority of an expression by The Connecticut State Medical Society; therefore, be it

Resolved: that the Committee on Public Policy and Legislation of this Society present to this Special Commission, on or before June 25th, 1936, such pertinent factual data regarding conditions which affect physicians as the Committee may be able to secure, together with constructive remedial suggestions."

The Council recommended to The House of Delegates the adoption of the following resolution:

Resolved: that the Council of the Society be directed to review the program of The House of Delegates in its Annual Meeting and make recommendations to eliminate unnecessary and redundant procedure, with the intent to expedite the orderly transaction of the essential and important business of The House of Delegates.

VOTED, to accept the recommendation of the Council, and to so direct.

The President presented to The House of Delegates the President-elect, Dr. Daniel C. Patterson, who briefly expressed his appreciation of the honor and pledged his best efforts for the Society's welfare.

VOTED, that The Connecticut State Medical Society, by its House of Delegates, hereby expresses its appreciation and thanks to the Hartford County Medical Association and to all others who have contributed, scientifically and socially, to the pronounced success of this 1936 Annual Meeting.

The House of Delegates, at 12:10 P. M., adjourned *sine die*.

Twelfth Clinical Congress

of

THE CONNECTICUT STATE MEDICAL SOCIETY

New Haven, September 22, 23, and 24, 1936

Sterling Law Buildings
Sterling Hall of Medicine
and
Brady Memorial Laboratory

THE Twelfth Clinical Congress of the Connecticut State Medical Society will be held in New Haven on September 22, 23, and 24. During the past years the Congress has increased in importance as a means of post-graduate education and as an occasion for the meeting of physicians for the discussion of numerous old and new problems in medicine. Last year 627 physicians registered for the Congress. It is hoped that an even greater number will attend the next session.

During the past months plans for the next Congress have been matured through consultation in various committees and groups interested in making the Congress most informative and serviceable. The morning sessions will be devoted to the presentation of papers by men noted for accomplishments in the fields of the subjects which they will discuss. At the afternoon sessions there will be bed-side clinics given by speakers of the morning, to be followed by panel discussions of the subjects that have been presented at the morning sessions. Members of the Congress will have the opportunity to present questions to be considered at these discussions.

In addition to these clinics and well-arranged discussions there will be two particularly novel features of the program. One of these will be a panel discussion at one of the morning sessions on the subject: "Endocrinology of Today", under the chairmanship of Dr. Roy G. Hoskins. The other will be evening sessions of the various special sections. Members of the Congress will have the privilege of attending any of these.

At the time of the Clinical Congress, the Women's Medical Society of Connecticut will hold its fall luncheon meeting in New Haven.

Early in July a preliminary announcement was sent to members of The Connecticut State Medical Society and others. This was accompanied by a registration card and the information that the registration fee will be $2.00. This fee will not cover the cost of luncheons. Early registration, with a check for $2.00 accompanying the notification card, will greatly facilitate the work of the Committee. Names of all who register before August 25 will be published in the final program which will be distributed about September 1.

The program is as follows:

. . PROGRAM . .

(All times given are Daylight Saving Time)

TUESDAY, SEPTEMBER 22

Auditorium, Sterling Law Buildings

Dr. S. Bayne-Jones, Presiding

9:30 A. M.

Our Duty to the Fracture Patient.

Dr. Frederic W. Bancroft, Associate Professor of Clinical Surgery, Columbia University; Attending Surgeon, City Hospital, New York.

Our duty to the fracture patient begins at the time of injury and continues until he is back at his normal occupation. Therefore consideration must be given to immediate fixed traction for transportation, improving facture treatment in hospital service and outpatient department.

10:15 A. M.

The Etiology, Treatment, and End Results of Gastro-Duodenal Ulcer.

Dr. Burrill B. Crohn, New York.

Philosophical concepts regarding the etiology of ulcer; incidence of heredity; traumatic ulcer; orthodox methods of treatment; new-fangled ideas; end results of treatment; complications; indications for surgery; differentiation of benign from malignant gastric ulcer. Do gastric ulcers undergo malignant degeneration? Discussion of types of surgical operations to guarantee cure and prevent recurrences; medical versus operative mortality and end results of surgical treatment.

11:00 A. M.

What the General Practitioner Should Know About Neurology.

Dr. Foster Kennedy, Professor of Neurology, Cornell University Medical College; Director of Neurological Department, Bellevue Hospital, New York.

General principles and methods of examination.

11:45 A. M.

Poliomyelitis.

Dr. Thomas M. Rivers, Member of The Rockefeller Institute for Medical Research, New York.

Clinical and experimental observations, that seem to throw light on the pathogenesis, pathology, prevention and cure of poliomyelitis.

TUESDAY, SEPTEMBER 22

AFTERNOON SESSION

2:15 to 3:00.

Bedside Clinic. Case of Essential Hypertension.
Dr. Bancroft.
Surgical Amphitheater,
Farnam Memorial Building.

2:15 to 3:00

Bedside Clinic. Case of Colitis.
Dr. Crohn.
Auditorium,
Brady Memorial Laboratory.

2:15 to 3:00.

Bedside Clinic. Case of Encephalitis.
Dr. Kennedy.
Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

3:00 to 4:30.

Symposium on Treatment of Fractures.
Surgical Amphitheater,
Farnam Memorial Building.

Dr. Carl W. Henze, Chairman
Dr. Alexander L. Bassin
Dr. Edward H. Crosby
Dr. Carl L. Gade
Dr. Herman M. Hurwitz
Dr. Frank S. Jones
Dr. Merrill K. Lindsay
Dr. Thomas J. Luby
Dr. John F. McDermott
Dr. Sidney H. McPherson
Dr. Thomas P. Moylan
Dr. Maurice M. Pike
Dr. Robert G. Reynolds
Dr. Joseph D. Russo
Dr. Grover C. Sweet
Dr. John H. T. Sweet
Dr. Robert M. Yergason

1. Transportation and immediate care of fractures.

2. General methods of fracture treatment, such as immobilization and mobilization.

3. Traction methods.

4. Operative procedures — direct fixation and modern treatment of fractures of the neck of femur.
5. Compound fractures.
6. Development of individual skill.
7. Periodic X-ray control.

TUESDAY, SEPTEMBER 22

3:00 to 4:30.

Auditorium,
Brady Memorial Laboratory.

Dr. Robert F. Scholl, Chairman
Dr. C. Brewster Brainard
Dr. D. Chester Brown
Dr. William Cohen
Dr. Charles F. Hyde
Dr. Edward R. Lampson
Dr. Albert J. Sullivan

1. Should Alkalies be used routinely in ambulatory ulcer patients?
2. What alkalies are the most satisfactory?
3. Given an ulcer patient who is symptom free, what in order of their efficacy are the best ways of preventing recurrence?
4. Of what value are the more recent parenteral methods of treating ulcer?
5. What is the present status of mucin therapy?
6. Should an ulcer patient who is symptom free be allowed beer and wines?
7. Do emotional upsets cause recurrences?
8. Is surgery warranted for symptoms alone, in absence of complications, such as obstruction, haemorrhage, etc.?
9. Is gastrectomy justifiable in young individuals, with duodenal ulcer, in their early twenties, because of failure of medical treatment?
10. Is prolonged bed rest essential in good medical treatment?
11. Does food allergy play an important role in peptic ulcer?
12. What is the relationship of gastritis and duodenitis to peptic ulcer?
13. Have the five year results in gastrectomy been so satisfactory that "medical failure" should be admitted at an earlier stage?
14. Is the elimination of focal infection an important part of ulcer therapy in the average case?
15. Can duodenal ulcer be differentiated from gastric ulcer from the history and physical examination?

3:00 to 4:30.

Symposium on Neurology.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

Dr. Otto G. Wiedman, Chairman.
Dr. James C. Fox.
Dr. Daniel P. Griffin.
Dr. George A. Gosselin.
Dr. Arthur H. Jackson.
Dr. Bernhard A. Rogowski.

1. Circumstances under which a spinal tap should and should not be made.
2. The evaluation of symptoms after head injury.
3. Role of vitamins in neurologial diseases.

3:00 to 4:30.

Symposium on Poliomyelitis.

Auditorium,
Sterling Hall of Medicine.

Dr. Alfred Labensky, Chairman.
Dr. Thomas C. Carey.
Dr. Joseph L. Hetzel.
Dr. Carl L. Thenebe.
Dr. James D. Trask.
Dr. Edwin Pyle.

1. Under what conditions is the use of the respirator justified?
2. What is the best method to treat paralyzed muscles so as to preserve the maximum function or to prevent unnecessary loss of function?
3. To what extent is hospital care more advisable than home care in non-respiratory cases?
4. What general therapy should be used in the acute stages of the disease?
5. Is the disease poliomyelitis spontaneously attenuating itself?
6. Is there any definite routine treatment that could be routinely followed?
7. What are the relative values of dehydration and "hydration"?
8. What is the value of prolonged spinal drainage?
9. Are not poliomyelitis and encephalitis lethargica forms of the same disease and is it not even possible that "infectious neuronitis" and Landry's ascending paralysis have something in common?
10. What is the status of vaccine treatment?
11. How many individuals afflicted with this disease in the last severe epidmeic have been rehabilitated so that they could make a living?
12. To what degree have muscle transplants resulted in an increase of function?
13. In what percentage of cases has the promiscuous intraspinal administration of serum resulted in an aseptic meningitis with deleterious sequelae?

8:15 P. M.

Section on Eye, Ear, Nose and Throat.
Dr. Perry G. Goldsmith, Toronto.
Acute and Chronic Upper Respiratory Inflammation. A Clinical Lecture from Water-color Drawings on Lantern Slides.

Section on Neurology and Psychiatry.
Dr. Abraham Myerson, Boston.
The Neuroses.

The Hezekiah Beardsley Pediatric Club.
Dr. Louis K. Diamond, Boston.
The Role of Iron in the Nutrition of the Young.

Cardiology.
Dr. Howard B. Sprague, Boston.
The Progress of Cardiology during 1935-1936.

WEDNESDAY, SEPTEMBER 23

Auditorium, Sterling Law Building

Dr. Daniel C. Patterson, Presiding.

9:30 A. M.

Recent Advances in the Diagnosis and Treatment of Peripheral Vascular Diseases.

Dr. Louis G. Herrmann, Assistant Professor Surgery, University of Cincinnati; Director of the Vascular Diseases Clinics of the Cincinnati General Hospital and the Christian R. Holmes Hospital of the University of Cincinnati.

Review of the important methods of diagnosis of circulatory disturbances in extremities will be presented. The surgical measures for relief of pain and vascular spasm in extremities will be discussed. Emphasis will be placed on the conservative management of obliterative arterial diseases.

10:15 A. M.

Injuries of the Bones and Soft Tissues of the Face.

Dr. Vilray P. Blair, Professor of Clinical Surgery, Washington University School of Medicine, St. Louis.

Continued on Page 70

ACTIVITIES OF THE STATE DEPARTMENT OF HEALTH

Continued from Page 17

The other money available is divided into three groups. One part of that is to be given to the State Health Department or the local health departments, on the basis of population allocation. That amounts to fifty-nine odd thousand dollars.

Eleven thousand-odd is to be given to the State Health Department or local health departments on the basis of special health needs.

The third part is to be given to the State Health Departments on the basis of what is called "equalization." The states that are poor, such as North Carolina, get $96,000. A state that is not so poor, like Iowa, gets $48,000. States like California, Connecticut, Delaware, and six or seven others, get nothing under this "equalization" allocation, because we are not poor enough to get that money.

The Tumor Committee of the State Medical Society discussed with me the matter of rounding out the so-called "cancer unit," or a group of workers to study cancer and assist your Committee, with the result that we secured funds to assist in the cancer control work amounting to $6,230, which with the state appropriation of $5000 for each of the next two years gives us $11,230 that your Committee has to work with, with the State Health Department.

We also convinced the Public Health Service that occupational diseases in Connecticut were a problem and they supplied $8500 for that purpose.

As to mental hygiene, they concluded that that also was a special problem in Connecticut and they furnished $15,790 for that.

A miscellaneous group of activities in the Department, including the flat allotment of $7843, got allotments amounting to $11,280. In other words, about $4000 more was given for odds and ends.

That left, as I say, about forty-odd thousand dollars to assist other departments of health that had full-time health officers. New Haven, Stamford, West Hartford, Fairfield, etc., would be eligible under that.

That, in brief, tells you how the money is going to be spent and what the purpose of the Congressional Act, the Social Security Bill, was in so far as the Public Health chapters are concerned. The rest of the Security Bill I know absolutely nothing about. It covers unemployment insurance and other things which do not concern the Department of Health.

In brief, Chapter 5 of that bill provides for funds for maternal and child hygiene amounting to about $40,000 which we are getting, and funds for crippled children amounting to about $40,000 which we may get. That is carried on through the Children's Bureau of the United States Department of Labor. The rest of the money, seventy-nine-odd thousand, is given to the State Health Department and local health departments through the United States Public Health Service and is administered through that Service.

In both instances, we have to agree to certain things which Washington has required, and up to the present time they haven't required anything which has been unduly hampering.

The reason we haven't gotten the crippled children money is simply because the Congressional law was so written that the state agency in Connecticut that spends the crippled children money must match it with money that that agency has for crippled children purposes — and the State Health Department only had about $1000 for crippled children work. So we are trying to combine with the State Tuberculosis Commission, and if they agree to have a joint administration that will probably go through.

TWELFTH CLINICAL CONGRESS

Continued from Page 69

WEDNESDAY, SEPTEMBER 23

The immediate and early care of various types of injuries to the hard and soft structures of the face; the bearing of the early care upon the later results, and its relation to subsequent corrective procedures.

11:00 A. M.

Recent Advances in the Study of Food Allergy.

Dr. Warren T. Vaughan, Richmond.

Skin testing is only one phase in the study of food allergy. The author discusses methods of skin testing and the relative advantages of scratch and intracutaneous methods. The importance of biologic grouping of foods as an aid in diagnosis. Methods of keeping the diagnostic food diary, which materially enhances the accuracy of the study when used in conjunction with skin testing. The use of the leukopoenic index. The application of these various methods is discussed in illustrative cases. (Lantern slides.)

11:45 A. M.

The Clinical Manifestations of Ectopic Gestation.

Dr. Walter T. Dannreuther, Professor of Clinical Gynecology, New York. Post-Graduate Medical School; Director of Gynecological Service and Attending Gynecologist, Post-Graduate Hospital; Consulting Gynecologist, Lutheran, Broad Street, Pan-American, Bronx Maternity and North Hudson Hospitals and House of the Holy Comforter, New York; Consulting Obstretrician and Gynecologist, Fitkin Memorial Hospital (Asbury Park, N. J.)

Correlation of the pathology, symptomatology and treatment of ectopic gestation; discussion of the differential diagnosis, and the several types of cases from a clinical standpoint.

WEDNESDAY, SEPTEMBER 23
AFTERNOON SESSION

2:15 to 3:00.

Bedside Clinic.

Case of Raynaud's Disease.

Dr. Herrmann.

Surgical Amphitheater,

Farnam Memorial Building.

2:15 to 3:00.

Bedside Clinic.

Case of Cancer of the Mouth.

Dr. Blair,

Auditorium,

Brady Memorial Laboratory.

2:15 to 3:00.

Bedside Clinic.

Case of Migraine.

Dr. Vaughan,

Medical Amphitheater,

Laboratory for Medicine and Pediatrics.

2:15 to 3:00.

Bedside Clinic.

Case of Fibroid Tumors of the Uterus.

Dr. Dannreuther.

Auditorium,

Sterling Hall of Medicine.

3:00 to 4:30.

Symposium on Peripheral Vascular Disease.

Surgical Amphitheater,

Farnam Memorial Building.

Dr. Ashley W. Oughterson, Chairman.
Dr. Richard C. Buckley.
Dr. John H. Foster.
Dr. Samuel J. Goldberg.
Dr. Harold M. Marvin.
Dr. Thomas P. Murdock.
Dr. Winthrop D. Scudder.
Dr. William M. Stahl.

1. Differential diagnosis of thromboangiitis obliterans and arteriosclerosis obliterans.
2. Differential diagnosis of vasospastic and occlusive vascular disease.
3. Treatment of Raynaud's disease.
4. Diagnosis and treatment of peripheral embolism.
5. Conservative treatment of occlusive arterial disease and diabetic gangrene.
6. Relief of pain in vascular disease.

3:00 to 4:30.

Symposium on Injuries to the Bones and Soft Tissues of the Face.

Auditorium,

Brady Memorial Laboratory.

Dr. William F. Verdi, Chairman.
Dr. William J. German.
Dr. H. Lyons Hunt.
Dr. Claude C. Kelly.
Dr. Paul W. Vestal.

1. What is the correct method of treatment of early wounds to the face?
2. Should wounds to the face be closely sutured when first seen or should a second operation be contemplated?
3. What antiseptics are of most value in the sterilization of these wounds?
4. What suture material and type of needles produce the best results?
5. In general, how long should sutures remain in such wounds?
6. Should the assistance of a dentist be required in the reduction of fractures involving the maxilla and mandible?
7. What is the treatment for compound fractures of the nose?
8. What is the treatment for depressed fractures of the face?
9. Should lacerations through the eyelids be sutured at once or delayed?
10. How should wounds involving the salivary glands be dealt with in the early stages?
11. Should wounds of the face be exposed to the air or covered with dressings?

WEDNESDAY, SEPTEMBER 23

12. What interval should elapse between the time of injury and secondary operation designed to improve the scar in a relatively clean wound?

3:00 to 4:30.

Symposium on Food Allergy.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

Dr. Howard S. Colwell, Chairman
Dr. Stanhope Bayne-Jones.
Dr. Augustus R. Felty.
Dr. James E. Hutchison.
Dr. Allan K. Poole.
Dr. James D. Trask.
Dr. Ellwood C. Weise.

1. Significance of eosinophilia and mechanism of its development.
2. Bearing of food allergy on seasonal hayfever.
3. Practical application of elimination diets to migraine.
4. Latent period in the reaction to foods, especially irritable colon.
5. Persistence of symptoms after a single ingestion of offending food.
6. Practical methods of desensitization to foods.
7. Practical points in history taking.

3:00 to 4:30.

Symposium on Gynecology.

Auditorium,
Sterling Hall of Medicine.

Dr. Luther Musselman, Chairman
Dr. Carl E. Johnson
Dr. James R. Miller
Dr. Arthur H. Morse
Dr. Harlan B. Perrins
Dr. Stanley B. Weld

1. A discussion of the significance of pathological vaginal bleeding in the pregnant and the non-pregnant woman.
2. A discussion of endocervitis, its causes and the relative merits of the various forms of treatment.
3. A discussion of the various types of malposition of the uterus and the indications for their correction.
4. A discussion of the treatment of menopausal symptoms with reference to the merits of sedatives, hormones and X-ray treatment of the pituitary gland.
5. A discussion of the differential diagnosis of pelvic masses and the various forms of non-operative therapy of pelvic inflammatory diseases.
6. A discussion of the diagnosis and treatment of trichomonas vaginalis with reference to the merits of powder insufflation, douches, suppositories, etc.

8:15 P. M.

Section on Radiology.

Dr. Richard Dresser, Boston.

The Radiological Management of Cancer of the Breast.

Section on Dermatology and Syphilology.

Dr. Marion B. Sulzberger, New York.

Recent Developments in the Diagnosis and Treatment of Diseases of the Skin.

Section on Obstetrics and Gynecology.

Dr. Emerson L. Stone, New Haven.

Motion Pictures.

THURSDAY, SEPTEMBER 24

Auditorium, Sterling Law Building

Dr. Daniel Sullivan, Presiding.

9:30 A. M.

The Practising Physician and the Diagnosis and Treatment of Occupational Diseases.

Dr. Leonard Greenburg, Executive Director, Division of Industrial Hygiene, New York State Department of Labor.

The relative importance of occupations in the production of diseases. The incidence and types of occupational diseases and some high lights concerning diagnosis and therapeutics will be discussed in relation to the general practitioner.

10:15 A. M.

Salient Experiences in Thirty Years Contagious Disease Practice.

Dr. Edwin H. Place, Physician-in-Chief, South Department, Boston City Hospital.

Because of the great variation in form and development of contagious disease, accumulated field experience is especially important in education. Examples illustrative of various phases.

11:00 to 12:30.

Endocrinology of Today. Panel Discussion.

Chairman, Dr. Roy G. Hoskins, Director of Research, Memorial Foundation for Neuro-Endocrine Research, Boston.

Dr. Fuller Albright, Associate in Medicine, Harvard Medical School, Boston.

Dr. Edgar Allen, Professor of Anatomy, Yale University School of Medicine, New Haven.

Dr. Earl Engle, Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York.

Dr. Max A. Goldzieher, Endocrinologist, Gouverneur Hospital, New York.

Dr. Ralphael Kurzrok, Associate in Gynecology and Obstretrics, College of Physicians, Columbia University, New York.

Dr. Elmer L. Sevringhaus, Associate Professor of Medicine, University of Wisconsin, Madison, Wisconsin.

An extempore discussion of the newer developments in endocrinology with special reference to their clinical applications. The hypophysis as a regulator of metabolic processes, as a controlling agent for other glands and as a regulator of reproductive activities will be stressed.

The practical uses of thyroid and the uses and limitations of sex-gland preparations will be discussed. Current trends in endocrine research will be indicated.

THURSDAY, SEPTEMBER 24
AFTERNOON SESSION

2:15 to 3:00.

Bedside Clinic. Case of Silicosis.

Dr. Greenburg.
Auditorium,
Sterling Hall of Medicine.

Bedside Clinics. Endocrinology.
Surgical Amphitheater,
Farnam Memorial Building.
2:15 to 2:45. Case of Parathyroid Disease.
Dr. Albright.
2:45 to 3:15. Case of Pituitary Obesity.
Dr. Goldzieher.
3:15 to 3:45. Case of Primary Amenorrhea.
Dr. Kurzrok.
3:45 to 4:15. Case of Diabetes.
Dr. Sevringhaus.

3:00 to 4:30.

Symposium on Industrial Diseases.
Auditorium,
Sterling Hall of Medicine.

Dr. Arthur B. Dayton, Chairman
Dr. Fred W. Comstock
Dr. Albert S. Gray
Dr. Leonard Greenburg
Dr. Yandell Henderson
Dr. Robert P. Knapp
Dr. Daniel Levy
Dr. Eugene F. Meschter
Dr. Marion B. Sulzberger

1. The diagnosis of silicosis:
 a) The industrial background — industries and processes.
 b) X-ray technique.
 c) What constitutes each stage of the disease.
 c) Tuberculosis and silicosis.
2. What is lead poisoning?
3. How is a diagnosis of lead poisoning made?
4. What is lead absorption?
5. The blood, urine and feces in lead absorption and poisoning.
6. The blood, urine and feces and lead content in the normal patient.
7. a) When to delead.
 b) The treatment of lead poisoning.
8. The treatment of palsies in lead poisoning.
9. What is a good occupational history and what should it contain?
10. What are the symptoms of carbon monoxide poisoning?
11. How is it diagnosed?
12. The treatment of carbon monoxide poisoning.
13. Is there such a thing as chronic carbon monoxide poisoning?
14. The sequelae of carbon monoxide poisoning?
15. How is poisoning by benzol and other solvents recognized?
16. What is the treatment for benzol poisoning?
17. What causes dermatoses in industrial workers?
18. What is the treatment for such conditions?

3:00 P. M.

Symposium on Immunity Procedures in Acute Infections.
Auditorium,
Brady Memorial Laboratory.

Dr. Joseph I. Linde, Chairman
Dr. Francis G. Blake
Dr. Howard W. Brayton
Dr. Grover F. Powers
Dr. Carl L. Thenebe
Dr. Clifton C. Taylor

Pneumonia

In what percentage of cases of pneumonia is serum of value?
What are the results?
What are the methods of determining the types?
Should serum be used in late cases?
What is the value of transfusion in the treatment of pneumonia?

Meningococcus Meningitis

What types of antitoxin are available?
Is there any choice?
Is the intravenous route preferable to the intrathecal?

Whooping Cough

What is the value of Sauer's Vaccine in the active immunity of whooping cough?
Does the site of innoculation make any difference?
What is the proper dosage?
Does Krueger's Vaccine produce any lasting immunity if used after an uncertain exposure?
Does intradermal injection of most of the dose of Krueger's Vaccine give a better result?
What is the value of adult or convalescent blood in the prophylaxis and treatment of whooping cough?
What vaccines are of value in the treatment?

Scarlet Fever

What is the value of scarlet fever toxoid in producing active immunity?
Should active scarlet fever immunization be universally advised as is the active immunization for diphtheria?
What are the reactions following the innoculations for immunization?
What is the incidence of scarlet fever in localities where immunization is prevalent?
What is the desirable age to give active scarlet fever immunizations?
Are there any contra-indications?

Measles

When should passive immunity for measles be used?
What method should be used?
 1) Convalescent serum.
 2) Adult blood.
 3) Placental extract.
In what other diseases may the above three methods be used for immunization procedures?

Poliomelitis

A discussion of the immunization procedures recently advised for poliomyelitis.
What is the value of nasal astringents, if any?
Is there any risk in their use?
In what other diseases should passive immunity be attempted?

County Medical Associations

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Fall Semi-Annual Meeting, Wednesday, October 7, 1936, at Danbury.

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Fall Semi-Annual Meeting, Tuesday, October, 1936 at Shuttle Meadow Country Club, New Britain

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W. Bradford Walker

Fall Semi-Annual Meeting, Tuesday, October 6, 1936. Place not yet selected.

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Committee on Medical Economics

James Murphy, Chairman, Middletown

Committee on Emergency Unemployment Medical Relief

Joseph Magnano, Chairman, Middletown

Fall Semi-Annual Meeting, Tuesday, October 6, 1936. Place not yet selected.

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J. D. McGaughey
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A. S. Brown
W. J. Dennehy
L. H. Nahum
W. E. Hartshorn
S. Bayne-Jones
W. J. H. Fischer

Fall Semi-Annual Meeting, October 29, 1936, at Waterbury.

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Robert R. Agnew, Chairman, Norwich

Committee on Medical Ethics and Deportment

Harold W. Wellington, Chairman, New London

Committee on Medical Economics

Frank M. Dunn, Chairman, New London

Committee on Emergency Unemployment Medical Relief

George H. Gildersleeve, Chairman, Norwich

Fall Semi-Annual Meeting, October 1, 1936, at Norwich.

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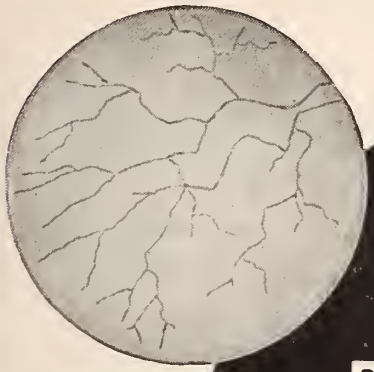
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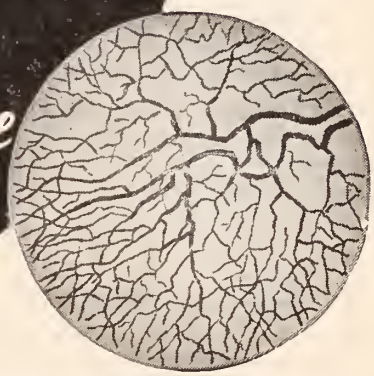
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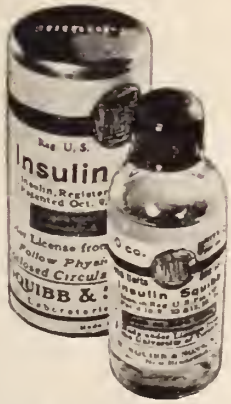
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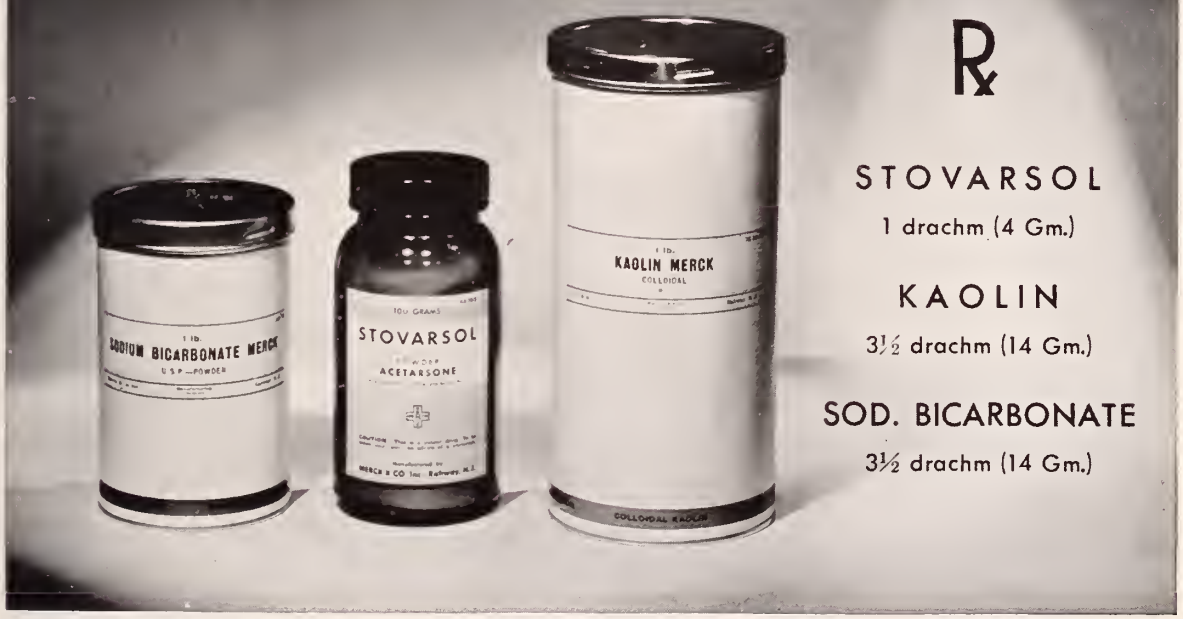
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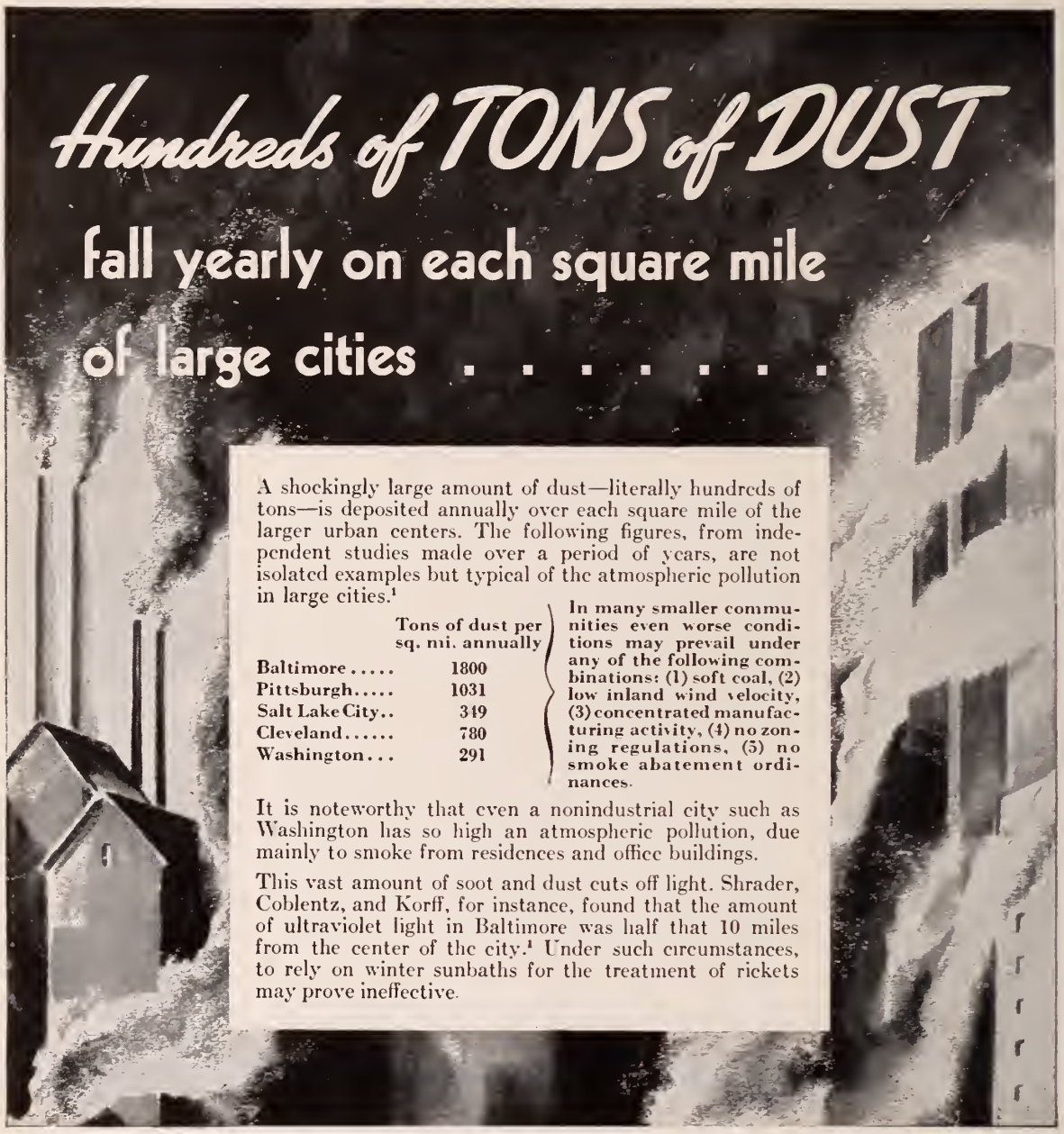
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VOL. I. NOVEMBER, 1936 NO. 2

Below the Surface of Neuroses and Psychoses*

By FOSTER KENNEDY, M.D.
Professor of Neurology, Cornell University Medical College, New York City

TO REGARD as axiomatic that no branch of Medicine stands alone we would not go amiss. As in a tree, each branch grows in itself and as an integral part of the whole. Of Neurology and Psychiatry in its relation to all Medicine this appears particularly true. Internal Medicine underlies Neurology, and Neurology in turn forms the foundation of Psychiatry. In the study of either we must interest ourselves in the general field and consider nothing in biological thought beyond the pale of our concern. The neurologists of the past century have been occupied with unearthing, specifying and classifying neural disorders in their variety of phases and manifestations. This work lies behind us, and the time has come for us to seek for the glandular, the toxic or chemical origin of disease below the surface of morbid phenomena. This is often a laborious task real and unyielding of apparent profit, but on such digging in the very essence of medicine, depends the establishment of a real pathology of mind. There is no further need for a cumulation of evidence to demonstrate the high frequency of neural change depending upon changes in other tissues. Not further back than a span of years, it was shown that general paresis, at one time considered a disease unit of insanity in itself, was nothing else but lues. Our own generation of doctors may recall that as students they were told of the likely responsibility of overwork or exposure for this disintegration of personality.

As an early experience I call to mind an incident of guess work on the part of a senior officer, who saw paralysis agitans as a neurosis without organic or structural basis. Today, its cellular pathology is definitely known, and its infective origin has been largely explored. My own conception of asthma was at one time uncertain and hazy, now its etiology is known to be allergic, and the idea begins to dawn that in many cases of both organic and functional nerve disorders individual sensitiveness to specific protein is a prominent factor. So it behooves us to be alive to what internal medicine has to tell us. Our search must broaden and deepen. We must also penetrate into the nebulous field of endocrinology — a place of shifting shadows.

Though our view of organic processes and relations has grown in perspective, deviations of mental and emotional nature are still apt to be regarded as unitary diseases in themselves. Certainly, it is high time that the idea of psychiatry as dealing with just mind disorder should be

*Read before the Twelfth Clinical Congress of the Connecticut State Medical Society, Sept. 22, 1936, New Haven, Conn.

abandoned. No biological or medical foundation exists for such a dual conception of man's nature, a conception rooted in ecclesiastical doctrine and fastened upon us, for two thousand years to paralyze proper thinking. Today, the old views of space either empty or filled with "ether" have been discarded. With the acceptance of the theory of nature as "Energy," in as many varied patterns as there are kinds of inorganic matter and living things, man takes his place in the universal oneness, his environment pervading him wholly and he vastly extending himself into it. His unique pattern moulds him for a flitting opportunity for experience, a stream of creative continuity embodying design and purpose.

In recent years psychiatrists have shown a tendency to ignore this *structural* patterning of man, and to separate soma and psyche. The mind, devoid of structure and fabric, has been detached by them and treated as something suspended in mid-air like Mohammed's coffin swung between heaven and earth. Sensations are seen by Plotinus as obscure thoughts, and intelligible or spiritual thoughts as distinct sensations. In a kind of specialism in blinkers, such unity of function and structure has been lost. By the present-day psychiatrist bodily functions are often disregarded, as beneath his notice. Were he to do otherwise he would suffer, in his own sight, a sense of professional and social demotion. From Juvenal he may have heard that on an empty belly his patient cannot cry "Evoe Bacchus"; but nowadays only with propriety can he do so as an unconscious compensation against an incestuous passion for a maiden aunt who keeps a milk-farm.

The modern brand of psychology is termed an analysis. This is no more than playing on the surface of the problem. The depths of mental origins lie buried beyond the reach of such ingenious scholasticism. Let us clarify the problem by putting it in this way — Why to relieve his difficulty does a certain person substitute some thing else? And why, in the case of another person, happiness comes without going through this complicated precedure? The stable or unstable equilibrium of his intellect and feeling growing out of the nature of the play of organic forces in the individual lies at the bottom of the problem. Here modern psychology only describes but does not explain this difference between one individual and another. This is no more than mere recognition. A person going into a picture gallery may pick out and recognize a painting by Rubens and another by Velasquez and yet have no understanding of the ideas, the mixture of colors, or what of the artist himself went into the work of each. To about the same degree of ignorance we fail to know the causation of two of the grave diseases afflicting mankind of our day, dementia precox and manic-depressive psychosis. As a substitute for our lack of knowledge, each decade we resort to different dead languages for new labels and think we are marching on. For the deeeper causes of the projections we must look to the type and quality of the brain and body. My grandfather studied miles of temperature charts through sixty years in the vain hope of throwing light on the problem of "fever". The causes of "fever" would never have been thus discovered had a "bodily" orientation not been found — a primary rather than a secondary orientation. We now regard fever as a beneficent and often conquering ally against a more concealed opponent instead of as a primary disease entity, as it was then held to be. What direction in our search? The centre of our impulses and the coloring of our souls turned on the world lie in, 1, brain, 2, body.

As the function of sight is to the eye, so is mind to brain and body. Without reference to the eye, the retina, the optic tracts, the cortex in its ability to pick up and differentiate impulses, to unify or reject them, what attempt would any one make to discover the meaning of Sight? How completely ignorant of sight we would be! Without knowledge of the mechanism and brain connections of the eye, we would not have arrived beyond visual aesthetics nor could we come to the solid ground of physical fact. There is this to lead us on — from lesions as organic as a fractured femur came morbid behaviour and morbid emotional conditions in encephalitis. From such cases we can derive valuable knowledge of neurotic and psychotic states of physical rather than of emotional or psychic origin.

Nervous manifestations are concomitant with all specific fevers. We classify as delirious from fever a patient with pneumonia who under delusions of threatening destruction hurls himself from a window, while we call a similar psychotic situation without manifest intoxication, cyclothymia, the organic pathology of which is de-

nied by most psychiatrists. Strange ratiocination — mental fumbling. The pathology for neuroses and psychoses — sharing the same nature as they do — must be evolved from Medicine. To deduce it from philosophy or psychology has failed; these were the weapons of the Ancients. They serve till such time as we shall have added knowledge of the body but why should Psychiatry shun the weapons of our own day. Therapeutically the application of philosophical and psychological principles to symptoms have brought results at times. But now it is Medicine that must perforce sharpen its sword to battle its way to the nature of mental illness.

Frequently a proper plea to consider the human animal as a whole is heard on the lips of the psychologist. His meaning is perceivable in that, like the unicellular animal, the metazoic multicellular animal functions in each act in a unified manner. Each act being the resultant of forces in the organism, the human being may be considered to act as a whole. This is not to say that he feels and thinks as a whole.

Freud's theories have been often described as a consideration of human behaviour in a purely motivistic relation. The feeling, however, is prompted that Freud's view-point is only partly true rather than incorrect. It is but one side of the picture. Everything we see is symbolized in our mind, but one view is seen at a time, and the one to which consciousness responds is first and clearest. One line of attack, one angle of vision is not enough. Like Polyphemus, the psycho-analyst appears to look upon his world with but a single eye. The impression grows upon one that a certain belief is current among psycho-analysts that psychiatry has been absorbed by them. To their way of thinking, to be a psychiatrist one must practice their rigid system of rules and technique. There can be no divided allegiance. All Religions flare this on their banners, but Science does not.

They somehow suggest the idea that human personality cannot be appraised in other terms than theirs. Shakespeare, Voltaire, George Meredith, Thomas Hardy were no psycho-analysts, but compared with most of Freud's disciples they appear to have larger knowledge of motivistic phenomena and of the human spirit. It may well be said that so far the great artists have been the greatest of all psychiatrists. We know less than they understand.

So to me Freud's contribution seems to be a demonstration that personality has a phylogeny. That each of us physically is a developmental microcosm of our race has long been known to us. In its transition from egg to maturity our body has a course similar to the stages through which the whole race has passed. However, at different periods of our lives, as Freud has clearly said, in our emotions, strivings and dominance of one instinct over another, our change in instincts and personality evolve phylogenetically in us and when late age comes devolution comes also. The sexual instincts of a child emerge by gradual progression from a pre-occupation with one orifice of its body to a preoccupation with another; and further indeed the child is seen to be a polytheistic savage. But in recent lectures, Freud has expressed uncertainty of a therapeutic value in exposing this primitivity. Too truly, to reduce men to their lowest common denominator leads not to improvement of outlook nor to a feeling of happiness. When exposed to the rebellion of their antique urges some men feel despair and degradation.

Still this may be said, that this contribution of Freud and his followers has served to clarify how within the microcosm of each man's body our instincts have developed. Let us remember, however, that though we have physical fragmentary vestiges like gill-slits as well as instinctive and emotional vestiges like sexual reversions and scatological tropisms, it is folly to appraise the total body in terms of the one or the total personality in terms of the other.

Moreover, our thoughts tend to be diverted by the confident application of symbolistic theories and are perforce turned away from ideas which give much promise from other angles of observation. We are just beginning to glimpse potential development in the work on the metabolic processes of brain tissue, on the chemistry of the nerve impulse, on the role of enzymes and vitamins in neural nutrition, on changes of mood concomitant with variation in blood sugar, on the import of menopausal vaginal epithelium of a temporary nature in young women experiencing cyclical mental depression. Let us not turn from the spirit of Medicine to revert to the attitude of Alexandrine scholasticism. We do exactly this should we abide by doctrinal fiat and

inquire no further into neurotic and psychotic behaviour, and be satisfied with a consideration of mental phenomena docketed, and labeled, in the formal and rigid manner of the chemical analytical tables of our student days. Each human being is described for our acceptance as a single unit moulded to form, undeviating, unchanging under the influence of environmental stimuli. It is contrary to common sense and human experience, surely to assume that all individuals react in exactly the same way and according to pontifical chart.

There is as much difference in personalities and reaction as in faces. Even by Freud's own admission, individuals have different inherited endowments. The concept of inherited endowment is not fixed. Acquired characteristics can unquestionably be inherited. The difficulty is that our view is narrow, too limited. The units of time in which we think are far too small. Our own lives being so short, the results of inheritance of acquired characters do not come under our observation, and where sight does not reach, our mind does not extend.

In the animal world there exists much evidence of transmission of acquired characteristics, a defective germinal cell producing a defective descendant, who in turn will generate a defect in his descendants. If procreation in the lower animals can yield such results, so can we, though in the terms of our brief lifetimes these mutations cannot be seen because of the complexity and greater evolvement of our nervous systems.

Still, denial of the reciprocal influence of emotional stress on bodily tissue is in no way implied in this entire presentation. Peptic Ulcer is produced by strain and unhappiness. Hyperadrenalism and acute enlargement of the thyroid have been the result of fright, as we all have seen in both civil and military life. The reaction of many allergic persons to their specific protein is conditional on their automatic systems being under emotional spring. Perhaps we shall never tread over the borderline of this Shadow Country where psyche and soma join together and where revelation waits. If we should there learn to chart our way, we may acquire the power to control personality, and lose our humanity. We can, however, rest easy and sleep o'nights, for before destruction overcomes us through too much knowledge, civilization will be wiped out by war and the stupidity of statesmen.

Naturally, the growing organism is directed, modified and moulded by the impingement of sex, hunger and herd. By education and experience a potential homosexual may develop to completion, but it is my belief that in not resisting the normal trend of physiological living he shows himself to be biologically almost a complete homosexual to start with.

If mental breakdown is caused by the strain and stress of environment — as is the general belief among the laity — the War and the Depression would have yielded an epidemic of dementia precox and manic-depressive insanity. However, in all this lies no plea for the study of functional or "reversible" disorder by the mechanistic approach. Nevertheless, to search into the nature of man's mind all our physiological knowledge, and our knowledge of antropology and psychology should be employed, and our approach not confined to any one arbitrary symbolistic theory; this is a reasonable plea. Man should be dealt with as a whole, a dynamic and physiological whole.

There is more of a biopsychic approach than a mechanistic one in this attitude. An effort must be made not to be content with the mere sophistry of explaining the unknown by the still more unknown. It should be our belief that without a good neuronic endowment neither intellect nor ecstasy can be. Physical heredity draws the outlines and boundaries of mind for influence, while social inheritance and education, along with the moulding pressures of sex, the herd and hunger, plan effectiveness and application. Injury or infection or degeneration may destroy all.

The intrinsic nature of mind is still a mystery. For psychological ills we must needs rely empirically, on psychological remedies. We are now only skirting the edge of the land where discovery waits. Surely it is not beyond man's ingenuity and knowledge to find the way, and using the tools of modern science to reach the goal.

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Our Duty to the Fracture Patient*

By FREDERIC W. BANCROFT, M.D.
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OUR duty to the fracture patient demands that we give him adequate treatment from the time the accident occurs until he returns to his economic status and is symptom-free. This thesis presumes that the surgeon must have sufficient knowledge of the physiology of bone repair and the anatomy of the part to treat the patient in a manner which helps nature repair the damage. Moreover, if the surgeon should regard each fracture case as a *soft part injury* complicated by a broken bone the end results of treatment would be markedly improved. Delays in return to work are due to residual symptoms from joint and soft part injury as frequently as they are to mal- or non-union.

The increase in severe fractures due to high-speed locomotion has multiplied the number of surgeons who are treating fractures. Twenty years ago fractures were largely in the hands of industrial surgeons, with occasional fractures in children which came to the general surgeon. Now every surgeon may be called upon to treat fractures. This necessitates that the surgeon keep himself informed of the advances made in treatment.

Paul Magnuson, in the fracture oration given at the American College of Surgeons meeting in San Francisco, stated as follows:

"Each person is an individual and differs from all others, consequently each case must be considered a law unto itself. Fractures do not differ from other conditions in this. Although fractures are mechanical and tangible things, an apparatus will not do in one case what it has done in another. A new method of treatment is not necessarily good; it may have worked wonders in one case and in the hands of its originator, but may be a total loss in another similar case. In these days of mechanical advancement, we see many devices of strange and wonderful design advocated for the reduction and retention of fractures. Some are very ingenious appliances to meet a condition which has arisen in a given case, some are strange and mechanical contrivances which it would take a Philadelphia lawyer and a mechanical engineer to apply. They might work if one could apply them, with nothing to bother about but mechanics, but many devices do not take into account the anatomy and physiology of the parts to be treated, and consequently cannot be used successfully in any but the unusual case. Such apparatus confuses and in the maze of mechanical gadgets the *principles* of treatment of the individual fracture in hand are overlooked and forgotten. There can be no objection to devising an apparatus which serves to answer a need in any case, but to the average surgeon it would be more useful if it were presented as the application of a principle."

Slides

I believe that previous conceptions of bone repair tended to make the whole problem seem very complex. In reality it is a normal, well-regulated process. We might briefly state the following conclusions as to the process involved.

1. Immediately after the fracture hemorrhage occurs and blood and serum infiltrate the muscle bundles and travel along fascial planes. This infiltration may travel a long distance from the source of injury.

2. After the hemorrhage has ceased and the initial fibron of the clot has been laid down, there is an ingrowth of fibroblasts, such as is seen in any soft part injury.

3. This growth is from the surrounding soft parts and from the medullary canal, and is granulation tissue.

4. Shortly after ingrowth of this granulation tissue is noted there is a deposition of calcium salts in the perivascular areas of this connective tissue, creating the initial callus. This callus may be limited by the periosteum, if the perios-

*Presented before 12th Clinical Congress, New Haven, September 22-24, 1936.

teum be not torn: If it is torn, the callus may invade the neighboring muscle-structure.

5. At a later time there is absorption of the exuberant callus, leaving a connective tissue frame-work and an osseous consolidation by increased calcification of the permanent callus.

6. The calcium needed for fracture repair is probably taken from the ends of the fractured bones in the immediate vicinity. This is shown microscopically by rarefaction of the ends of the bones with death of many of the bone nuclei. This means that the general systematic condition of the patient so far as calcium metabolism is concerned has little to do with the healing of fractures, for it has been noted that in diseases with diminished calcium metabolism there is little tendency toward non-union.

With the increasing field of fracture treatment it is advisable for each of us to take stock as to whether or not we are fulfilling our obligations to the fracture patient.

There are two groups of surgeons who become involved in this study: First, those practicing general surgery but not connected with a closed hospital, who treat patients at their homes or in one of several open hospitals; second, those connected with so-called closed services where they have the management or the direction of a limited surgical staff and a group of ward patients under their direct control.

Each of these groups has a series of obligations to the fracture patient, and it is necessary therefore to take them up separately, as they are practicing surgery along different paths. Much has been written about the general treatment of fracture patients with injuries of the skull, spine or long bones, who are hospitalized for a considerable period of time; insufficient time has been given to the ambulatory patient who may have an injury that interferes with his economic status as much as, or more than, a fracture of one of the long bones. A laborer or an artisan with a fracture of the wrist, carpal bones, metacarpals or phalangeals, for example, may be totally incapacitated for work for a long period of time, or even for life. Therefore, in taking stock of our fracture problem it is advisable again to subdivide our problem into the ambulatory and the hospital patient.

As surgeons practicing in the first group and not the head of a closed service, we must ask ourselves some of the following questions: If an ambulatory patient seeks us immediately after injury, and facilities for an X-Ray are not immediately available, have we the ability to make a clinical diagnosis from the history and the physical examination, and the courage necessary to do the reduction before the resultant hemorrhage and edema interfere with it? I once heard a surgeon say that if he had nothing to do he put a fracture *up*; if he had something to do, he put a fracture *off*. This is obviously wrong, because after the swelling occurs one must either wait for the swelling to subside by elevation of the part or add further trauma by forced reduction. As we have seen, the difficulty in reduction after swelling occurs is not due solely to muscle spasm, but is due as well to infiltration of the muscle fibers by hemorrhage and edema. Therefore, even under anesthesia, added trauma must result in our attempts at reduction. Repeated attempts at reduction may result in delayed union and are often followed by joint and soft tissue fibrosis. We will all agree that X-Rays following attempts at reduction are absolutely necessary — if possible within the first 24 hours. Having made a satisfactory reduction and having applied a retention apparatus, what is our next obligation to the ambulatory patient? We must be sure that we have arranged a retention apparatus adequate enough to hold the fractured segments in good position. On the other hand, we must be sure that we have allowed enough room for expansion to permit the secondary hyperaemia necessary for the organization of the primary blood clot. If tension is above the arterial capillary pressure edema of the extremity results and healing is interfered with. From what we have seen of the repair process following fracture we must assume that organization of the blood clot by granulation tissue is imperative for a satisfactory callus formation. Therefore, we must see the patient often enough to assure ourselves that the above conditions are complied with. If we belong to the school of early mobilization we must be pliable enough in our ideas to recognize that there are certain types of fractures wherein it is obligatory to maintain immobilization for a long period in order to prevent the recurrence of the original deformity. If one takes a Colles fracture, for example, there are certain types where there has been marked impaction and an oblique line of fracture in which prolonged immobiliza-

tion is necessary in order to prevent the recurrence of the silver-fork deformity. When we remove the immobilization fixation apparatus, do our obligations cease? Decidedly no. Do we free ourselves of our obligation by sending the case to a physical therapist without actually ordering ourselves the type of therapy to be utilized? We have often seen patients referred to physical therapy who returned with stiffened joints due to too enthusiastic adoption of the policy of passive motion. Similarly, there have been sufficient reported cases of disappearance of callus and non-union after diathermy treatments to make us consider very seriously whether or not this particular type of therapy is advisable to use on our individual patient. It is my impression that the act of referring a patient to physical therapy is often an acknowledgement of mental torpidity or laziness. Before we consider the adoption of additional therapy placing an increased economic burden either on the patient or on the state we must convince ourselves that it is the best method of therapy and that the same results cannot be achieved by the active cooperation of the surgeon and the patient. It is well known to all of us that the convalescing patient benefits by purposeful, active motion, intelligently directed. His primary faith lies in the surgeon whom he selected at the time of his injury, and that surgeon can do more toward making him work to regain his lost function than anyone else. Active motion carefully directed by the surgeon is often the most needed therapy. Gentle stroking massage and local heat can be practised by the patient or his family. Oftentimes this combination is sufficient to return him to his normal economic status.

If a practicing surgeon in an open hospital, what efforts are we to make to assure our patient transportation from the point of injury to the hospital should he have a fracture of the long bones, spine or neck? It is well known that transportation unsplinted, where the fragments are jack-knifed, or even with the application of a long auxillary splint, brings the patient to the hospital in greater shock than if he had had immediate traction applied to the injury where it occurred. The Committee on Fractures of the American College of Surgeons, is making efforts to establish regional fracture groups in every state in America and in every large community. One of the duties of these particular groups is to instruct ambulance carriers, whether they be morticians, firemen, policemen or internes, in the application of immediate traction. Moreover, we are attempting to stimulate all of these carriers to supply themselves with adequate splints. It is my conviction also that every practicing surgeon should have, either in his home, readily available, or in his automobile, a Keller-Blake half-ring splint for the lower extremity and a Murray-Jones splint for the upper extremity, and he should have so familiarized himself with the application of these splints that not only can he apply them himself, but he should be ready and willing to give a demonstration, if requested by either the American Red Cross, the Boy Scouts, the Girl Scouts, or any similar organization. If the patient is transferred to the hospital and the transportation splint removed before the final method of fixation is applied, the benefit of the immediate traction may be greatly diminished.

It is usually relatively easy to convince a superintendent or a board of trustees of the necessities of having adequate equipment for the treatment of abdominal surgery. Abdominal surgery has been so popularized and dramatized that this problem is not difficult. On the other hand, special appliances for fracture treatment are often difficult to obtain. This is partially due to the lack of enthusiasm on the part of the senior members of the staff and partly due to the fact that the necessity of adequate apparatus for the treatment and diagnosis of fracture cases has not been brought home to the administrative side of the hospital. The importance of such apparatus can readily be recognized when one considers that the average gall bladder case is absent from his occupation for approximately two months, while the fractured femur case is lucky if he returns in twelve months — and he usually does not so return for eighteen months. There is no question but that we must shorten this period of disability if we are to fulfill our duty to the fracture patient. After one has handled a patient for a considerable period of time one is apt to become stale and to be less alert in diagnosing a possible complication or in changing the line of therapy if indications are present. For this reason, consultation during treatment should be more frequently called for than in the acute emergency.

Let us now consider the duty of the surgeon

who is the chief of a charity service. His obligations increase four-fold. He must be assured that his hospital's ambulance is properly equipped with fixed traction apparatus in order to properly transport his patients. He must see, if his internes man the ambulance, that they are regularly trained in the application of fixed traction. He cannot assume that they will have received this training in a medical school, for unfortunately most medical schools in America are deficient in the training of students in the treatment of fractures, and very few of them give practical demonstrations of the application of fixed traction. This is indeed a sad commentary on medical education in the United States. In addition to the above responsibilities and to his private practice, his further duty is to the ambulatory patient who applies to the out patient department for treatment. He is responsible for the care of this patient. It is his duty to see that some young man in his out patient department is stimulated in the desire to learn about fractures. He must be assured that if an ambulant fracture is reduced in the out patient department he may have anesthesia for such a reduction. He must see that there is proper radiological study both before and after reduction, and he must be assured that the patient returns soon enough after reduction so that if there be too tight application of splints there may be no danger of Volkman's ischemic paralysis or periarticular fibrosis. Moreover, in order to be assured that he is rendering his patients proper care there should be an adequate follow-up system where analysis can be made of all cases. In such an analysis the failures and the causes thereof should be considered, and not the occasional startling successes. In the ward service some one member of a staff should be assigned to oversee fracture cases. Provision must be made that a fracture case be treated exactly as if it were an acute emergency. An assistant attending should be called to see each case on admission to the hospital. Certainly it is of prime importance that traction or reduction should be instituted before hemorrhage and edema interfere with therapy. The surgeon must see that adequate apparatus is installed. He must inquire whether or not he has a fracture cart; whether or not there are adequate traction appliances, and whether or not there is sufficient apparatus to utilize skeletal traction should it be necessary. Moreover, if open reduction be necessary a more rigid technique than is demanded for a similar abdominal procedure is necessary, to assure the patient a clean wound. In the average hospital in the past the fracture patient has been transferred to the lowest attending — and by him to the internes. The internes have inherited from their superiors the lack of interest in fracture cases and the unfortunate patient has suffered much thereby. We must stimulate an interest in fractures among our internes and general staff, and provide them proper instruction, so that we can return our traumatized patient to his normal place in society in the shortest possible period of time.

Those of you who are interested in improving the treatment of fractures are earnestly requested to either join the existing regional fracture group in your own community, or to aid in the formation of one. One has only to learn what has been accomplished by the regional fracture groups of the American College of Surgeons in various states, cities and communities to realize that through this organization a great deal has been done to stimulate interest in, and improve the treatment of fractures. In various communities ambulances which previous to that time had no proper apparatus, have been equipped with traction apparatus and their attendants trained in its use. The American Red Cross is inaugurating over 1500 first-aid stations along all automobile highways. These first-aid stations are to be equipped with traction splints and trained personnel. The Committee on Fractures of the American College of Surgeons is helping the Red Cross wherever necessary in the training of their attendants. At least 700,000 Boy Scouts have been trained in this method. The American Railroad Association is gradually equipping its railroads. Let us of the medical profession not be caught insufficiently prepared for this move, but let us lead it — as we rightfully should.

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Some Recent Advances in the Diagnosis and Treatment of Diseases of the Skin*

By MARION B. SULZBERGER, M.D.
New York, N. Y.

YOUR Chairman, Dr. Strauss, has given me a task which I cannot hope to accomplish. For it is clearly impossible in this brief address even merely to mention, much less to discuss, all the many recent advances in dermatologic diagnosis and treatment. It is, however, scarcely less difficult for me to choose and single out a few of these advances for this evening's discussion. My choice of material is perforce arbitrary, for I must of necessity omit many recent contributions of the very first importance. In making this arbitrary selection, my choice will be guided by two main considerations: I shall try to discuss, primarily, contributions which have either achieved some practical significance, or which appear to promise advances of practical importance; and I shall further limit my discussion, as much as possible, to those fields which have some relationship to my own special interests or investigations. By narrowing the choice in this manner, I hope that I shall be able more clearly to discuss certain aspects of modern dermatology which may be of interest and value to my listeners.

My subject lends itself readily to a division into investigative, experimental and diagnostic aspects on the one hand; and therapeutic advances on the other.

Many types of investigation into the reactions and processes of the skin possess general medical and biologic significances, and their results and implications are applicable, not only to skin diseases, but also to the understanding of fundamental biologic processes and of disease in general.

The results of such dermatologic investigations of wide fundamental and general significance represent the highest possible achievements of dermatologic research.

Among the recent investigations of this highest type, one may surely place the modern studies of the reactions of the skin blood vessels.

The first to be mentioned here are the studies of Sir Thomas Lewis and his collaborators. These well-known contributions are of such a fundamental, far-reaching general importance that they cannot fail eventually to advance our understanding, not only of the urticarial reactions of the skin, but also our understanding of internal diseases in which alteration of the walls of the minute blood vessels leads to increased permeability, and ushers in the morbid process. Roessle and his school have called this increased permeability and the resulting extravasation of fluid, when occurring in internal organs, by the catchy designation of "serous inflammation"; and this form of pathologic process has been demonstrated as an early manifestation in certain diseases of the kidney, the lungs, the liver, and other viscera. It may, therefore, be possible to link the happenings in the production of the wheal with the happenings in internal organs, and thus to study a great variety of internal diseases, all from such viewpoints as those of localized allergic hypersensitivity, of histamine or histamine-like effects, and of neurovascular (vegetative) mechanisms. And it seems more than likely that knowledge gained through the study of skin whealing may some day be applicable to such varied diseases as asthma, vasomotor rhinitis, migraine, certain forms of epilepsy, essential hypertension, nephrosclerosis, hepatic cirrhosis, and many others of equal general importance.

The second group of investigations into vascular skin responses does not concern itself with the peculiar form of increased permeability known as whealing, but with that type of vascu-

*Based on a paper read before the Section of Dermatology and Syphilology (Chairman Dr. Maurice J. Strauss); 12th Clinical Congress of the Connecticut State Medical Society, New Haven, Conn., September 23, 1936.

lar alteration which leads to hemorrhage. I refer here to the studies of S. M. Peck and his collaborators, in their investigation of the hemorrhagic skin reactions produced by the intracutaneous injection of mocassin venom. Peck found that the reaction to venom was of variable intensity, and that persons suffering from skin purpuras, or from non-dermatologic hemorrhagic conditions based upon alterations in the vessel walls, responded with pathologically increased hemorrhagic reactions at the venom injection sites. As shown in careful experiments by Peck, Rosenthal and co-workers, the skin venom reaction is increased in thrombocytopenic purpuras, Shamberg's disease, and purpura Majocci, for example, among skin conditions; and a similar increase in the intensity of the skin reaction to venom is sometimes found in familial hereditary teleangiectases, in certain cases of epistaxis, and in cases of functional uterine bleeding. Even at the most conservative estimate, the venom skin test thus promises to be of considerable importance in the diagnosis of various hemorrhagic conditions based upon an underlying alteration of the walls of the minute blood vessels. Furthermore, the test, according to Peck and Rosenthal, proves to be of prognostic significance as well; and may serve, through repetition at certain intervals, to enable one to follow the progress of a malady, or to acquire information as to the effects of therapy. Thus, a decrease in the intensity of the skin reaction speaks for an amelioration of the condition, while an increased reaction usually indicates an unfavorably trend (as recently demonstrated in thrombocytopenic purpuras).

The therapeutic results reported with venom are perhaps even more important than its diagnostic and prognostic value. Repeated injections have (according to Peck and his co-workers, as well as other observers) proven valuable in controlling the hemorrhages in those conditions in which the venom skin-test reaction is pathologically increased. Thus, there has been evolved a new method of treatment which promises to be an important aid in the management of functional uterine bleeding, of certain forms of epistaxis, of thrombocytopenic purpuras, and of other hemorrhagic diseases based upon alterations in the walls of the blood vessels.

A third form of dermatologic investigation of the blood vessels is that which employs their observation in vivo, by means of capillary microscopy (capillaroscope). Bettman and many others abroad, and Irving Wright and other American observers have reported finding characteristic alterations in the nail-bed capillaries in various diseases, such as Raynaud's disease, acroasphyxias, sclerodactylias, diabetes, hypertension, etc., so that this form of examination of the vascular system of the skin may be called upon as an aid in differential diagnosis, as well as a means of following the progress of certain diseases and their responses to therapy.

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Another and entirely different type of dermatologic investigation concerns itself with the allergic alterations of the skin, resulting from infectious processes. In these investigations, the specific extracts of the causal infectious agents are used as skin tests. The method usually consists of the intracutaneous injection of some form of specific extract, and the observation of the papular tuberculin-type reaction after a 48-hour interval.

Of recent studies along these lines, the work of W. Frei is undoubtedly the most brilliant example. The Frei test employs the heat-sterilized pus aspirated from an unopened bubo of lymphopathia venerea (lymphogranuloma inguinale, tropical bubo, strumous bubo, etc.). This test has revolutionized the approach to this disease in its protean manifestations. It has done for this entity practically what the Wassermann test did for syphilis. Before the advent of this specific skin test, this disease had not even been definitely established as of venereal origin; and many of the manifestations and guises of this affection were regarded as isolated and separate entities of unknown etiology. For it is only by means of the specific Frei reaction that we are now able to recognize such diverse conditions as Fournier's syphiloma-anorectale, elephantiasis of the vulva and of the scrotum, certain ulcerations of the vulva, certain strictures of the rectum, certain forms of urethritis, some generalized lymphadenopathies, and certain skin eruptions, as well as many other seemingly unrelated processes — all as being due to the virus

of lymphopathia venerea. Indeed, it is only since the introduction of Frei's test that the casual agent could be identified as a filtrable virus; and it is thanks to the Frei skin reaction that the study of this disease has received an impetus resulting in countless valuable contributions. The development of our knowledge of lymphopathia venerea in the United States has been of almost unbelievable rapidity. And I can think of no better illustration of how recent was the obscurity which surrounded this disease than the following: In 1930 I carried out, together with J. Wolf, the first Frei tests performed in the United States, and submitted a report of the results and a brief discussion of the new immunologic and other aspects of lymphopathia venerea to the leading medical journal of this country. The editors returned the manuscript with the remark that it was not suitable for publication because the disease in question and the test reported were of insufficient general medical interest in the United States. I was eventually obliged to publish this report in a British journal. During the subsequent short five years, hundreds of contributions on this subject have come from all parts of the United States. As examples, I need only mention to this audience the valuable experiments and publications of your Chairman, Dr. Maurice J. Strauss, together with Marion Howard.

Many other more or less specific skin reactions to extracts of infectious agents have been studied in recent years, although none, of course, has as yet attained the practical significance of the Frei test. Among the specific skin tests which have achieved a certain degree of practical diagnostic significance, I shall mention only those in tularemia (Foshay, H. L. Baer), in erysipeloid (W. Jadassohn and Ju Wu Mu), in undulant fever — brucella abortus (W. Jadassohn and Riedmueller), in leishmaniasis (M. Jessner), in intestinal parasitism (Fulleborn, W. Jadassohn), in pneumonias (Avery and Heidelberger, Tillett and co-workers, and Cocoa, Grove and Straus) (toxin!); in herpes simplex (Biberstein, Jessner, Hruszek and others); and last, but certainly not least, the Ito-Reenstierna and the Dmelcos test in chancroid infections.

Before closing the subject of allergic skin manifestations in infectious processes, I must call your attention to the function of the skin as an organ for creating specific immunity. The utilization of this skin function is as old as immunology itself; for the small-pox vaccination employed by Jenner is merely the creation of a general immunity following the stimulation of a vaccinia process localized in the skin. My own experiments with neo-arsphenamine, with horse serum, with ragweed allergen, and with staphylococcus toxoid have succeeded in convincing me of the predominant rule of the skin as the site for the creation of immune processes extending their effects to the protection of the entire organism.

There are many other observations demonstrating this general protective function of the dermatologic tissues. Examples of this type can be found in the works of Tuft, Yagle and Rogers in typhoid; of Kern, Crump and Cope with alum-precipitated diphtheria toxoid; of Wien and Perlstein in lymphopathia venerea; and in the ingenious experiments of Besredka and his school and particularly in those of Kahn; as well as in the immunizations by means of skin inunction, which have been achieved, for example, with ointments containing diphtheria toxin or diphtheria toxoid, (Loewenstein). This general immunizing property of the skin tissues was originally extensively studied by many dermatologists, including J. Jadassohn, Br. Bloch, (1917), Alois Memmesheimer, and Erich Hoffmann, (1919). The last-named called this function of the skin "esophylaxis". It seems probable to me that the future development of studies in this direction promises results of the greatest theoretical and practical significance; and that, in the not too remote future, the skin will be regarded as a protective organ in every sense of the word. And this means protective not only as an envelope, but also as an organ of paramount general immunologic significance. When this immunologic significance will have been fully established, the intracutaneous and percutaneous routes will become more general procedures for the administration of desensitizing and immunizing agents. More than six years ago, I called attention to the superiority of the intracutaneous methods of desensitization and immunization, as demonstrated in the ragweed desensitization experiments performed by Wise and me (J.A.M.A., 94:93, 1930). My subsequent experience with other immunization processes has confirmed my original impres-

sion, namely, that the intracutaneous administration of immunizing agents is very frequently more effective than the subcutaneous, intramuscular, or intravenous administration.

In the study of immunologic skin phenomena, based not upon infectious processes, but upon alterations of reaction (i.e., upon allergic hypersensitivities) to non-living agents, the recent investigations in eczema and in "eczematoid" processes are of the greatest interest. It is largely as a result of these studies of allergic phenomena that modern dermatology has succeeded in subdividing the heterogeneous and numerous skin manifestations originally grouped under the one designation "eczema".

Many of the eczematous and 'dyshidrosiform', vesicular and scaly hand and foot eruptions have been shown to be allergic skin manifestations secondary to fungus infections. This has been accomplished mainly by studies in the skin allergy to trichophytin, which have succeeded in substantiating the original hypothesis of C. M. Williams. Williams expressed the belief that such eruptions might perhaps be considered as secondary manifestations in the form of skin reactions to fungus products emanating from a distant focus; in other words, a type of *trichophytid,* differing in form from the non-eczematous original trichophytids studied and described by J. Jadassohn and Br. Bloch and their schools. Subsequently, W. Jadassohn and Peck, and other observers, including George M. Lewis and myself, succeeded in bringing experimental proof of the correctness of Williams' hypothesis. While these proofs consisted of many different steps and laboriously assembled data from both human and animal observations and experiments (J. Jadassohn, Br. Bloch, Saeves, Kojog, Von Graffenried, Djelalladin Mouktar, W. Jadassohn, Peck and many others), it is evident that the whole structure of proof is based upon the observations of immunologic changes and of allergic alterations in the skin responses to trichophytin. I believe that these studies also have a direct bearing upon non-dermatologic disease processes; and that the results of these investigations thus attain an importance transcending their purely dermatologic value. For, although it may not be generally recognized, in my opinion the studies of the skin tuberculids and trichophytids are those which lend the most valid experimental support to the entire doctrine of the distant effects of focal infection, and to the understanding of the part played by allergy in the secondary disease manifestations appearing at a site distant from the original focus, and containing no demonstrable living etiologic agents.

Another great advance in the subdivision of the original eczema has been accomplished by means of the separation of atopic dermatitis (neurodermatitis disseminata, lichen simplex disseminatus, prurigo Besnier, etc.) from the eczema group. It can now be accepted that the studies of recent years have demonstrated that atopic dermatitis is morphologically and histoogically distinct from true eczema; and is in contrast to true eczema in its association with hay fever and asthma and with so-called "infantile eczema" (see the excellent articles by Lewis Webb Hill). Further important differentiations of atopic dermatitis from eczema lie in the positive wheal reactions to so-called 'protein' allergens; in the presence of demonstrable specific Prausnitz-Kustner antibodies (now generally called 'reagins' — Coca); in the frequent presence of eosinophilia; and in the observation that patch tests, with the exception of those with nickel and other heavy metal salts, usually elicit no reactions. Moreover, it has been found that in atopic dermatitis, the course, prognosis, and, to a certain extent, even the therapy which may be employed all differ from those of true eczema.

I believe that it is undeniable that the greatest practical advances which have resulted from the immunologic approach to eczema, certainly do not lie in the fields of either dermatophytids or of atopic dermatitis. For, in both of these, therapeutic immunization measures are regretably inadequate at present, although there is some promise of future more general usefulness to result from modifications and improvements in method.

It is in the field of the eczematous contact dermatitides that the immunologic approach has yielded the richest harvest in practical results. These lie not only in the direction of etiologic diagnosis and prophylaxis, but also of therapy.

Within the last thirty to forty years, following the original work of J. Jadassohn (1896), Br.

Bloch, and their schools, the employment of the patch test in dermatoses based upon epidermal hypersensitivity of eczematous type has revolutionized the approaches to the problem of this form of eczema.

It affords me no little gratification to be able to take for granted that this audience today requires no explanation of the technic, uses, advantages, and limitations of the patch test. It is difficult for me to realize that it was only five and a half years ago that the first article on this subject appeared in the American dermatologic literature (Arch. Dermat. & Syph., 23:519, 1931); and that, in this brief period, the use of the patch test has not only enabled American dermatology to differentiate sharply between contact eczema and other eczematous and eczematoid dermatitides, but its employment has also led to other advances of truly incalculable practical significance.

The patch test has, for example, opened new avenues of approach to the study and prevention of occupational and industrial dermatitis. Its value in this direction is daily becoming more manifest; and its use is becoming more and more widespread. Not only is the general health of the community being improved by this use of the patch test, but its employment is resulting in the saving of increasingly large sums on the part of workers, employers, insurance carriers, and of industry and the community at large.

I need scarcely mention the improvement in etiologic diagnosis which has followed the use of the patch test in the practice of dermatology. There are, surely, not many physicians today who have not witnessed the case of some sufferer from contact eczema of obscure etiology, in which the patch test revealed the undreamed-of, though sometimes simple, causal agent, and thus resulted in an apparently miraculous, almost immediate 'cure' upon elimination of the culpable eczematogenous allergen. The total number of sufferers thus relieved in this country within the past five years must reach amazing proportions. And I firmly believe that, were it not for the intervention of the patch test, a large percentage of these cases would still be suffering from a dermatosis attributed to a vague, underlying disturbance of metaphysical etiology, such as "too much acid", "nervous exhaustion", "too rich blood", and countless other shibboleths. I make all these statements in spite of my full knowledge of the many difficulties and sources of error present in patch-testing, and in spite of many disappointing experiences of my own. For, although this method still fails in a high percentage of cases, it is undeniable that, in many a case, it yields success where no other procedure would avail.

While the results of the immunologic approach in the etiologic diagnosis and in the prophylaxis of certain eczematous eruptions are incontrovertibly brilliant, those with immunization therapy and desensitization measures are in general disappointing.

However, the eczematous dermatitides due to external contact with plants form a most notable exception to the above statement. Since the first reported desensitization in rhus dermatitis (Cooke, Spain, Strickler, MacNair) and the report of successful desensitization in ragweed dermatitis (Wise and the author) the use of injections in true eczematous dermatitis from poison ivy, ragweed, chrysanthemum, tulip, gaillardia, and many other plants has proven to be a hyposensitization measure of both prophylactic and therapeutic value. The great progress in this direction is in the main due to the recent works of Coca, Aaron Brown, Milford and coworkers, who demonstrated that the oil-solvent soluble fraction of these plants and pollens (and not the so-called protein fraction) is the excitant of the contact dermatitis. From the perusal of the literature and particularly from my own experience in poison ivy, ragweed, chrysanthemum and gaillardia dermatitides (Good and Rostenberg, Jr.), I have today no hesitation in saying that the intramuscular injection of the correct doses and preparations of plant oils is one of the most strikingly efficacious preventive and treatment procedures in immunologic dermatology.

The future will surely show some way in which this immunologic measure can be modified to apply not only to plant oil dermatitis, but also to other forms of contact eczema. And since contact eczemas are numerically and practically among the most important skin affections, and since their management now often constitutes one of the most baffling dermatologic problems, I believe that this subject is to be considered one

of the most enticing and important problems for dermatologic research.

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In regard to the study of metabolic diseases, I wish to call particular attention to the recent dermatologic investigations which have thrown light upon those entities connected with disturbances of the fat and lipoid metabolism. Oppenheim and, notably, Urbach have here contributed important advances in the bio-chemistry of the fat-metabolism of the skin; and have also described a series of newly segregated dermatologic entities connected with fat and lipoid alterations of the skin. Among these, the lipoidoses, lipoid-proteinoses, and especially necrobiosis lipoidica diabeticorum are worthy of mention. This last-named dermatologic entity consists of circumscribed placques, usually occuring on the lower legs, and found either exclusively or almost exclusively in diabetics. It is astonishing that this obvious and characteristic skin alteration, connected with diabetes, had heretofore escaped the observation, not only of dermatologists, but even that of internists and specialists in diabetes. I believe that among the first American cases of necrobiosis lipoidica diabeticorum were those reported about three years ago by Zeisler of Chicago, and H. Michelson of Minneapolis, and numerous cases have since been added to the American literature. The disease is uncommon, but not as rare as was at first supposed. Many of us recently had the opportunity of seeing sixteen cases in one afternoon. These had been assembled by a group of Boston dermatologists, from the diabetic material of Joslin's clinic; and were presented at the clinical meeting of the American Dermatological Association.

The more dynamic, and therefore perhaps more fundamentally important studies in fat and lipoid metabolism, are represented by the recent works of F. Schaaf and his collaborators. Schaaf's investigations were instigated at the clinic of the late Br. Bloch, and were continued under his successor, Guido Miescher. In a series of beautiful biochemical experiments, it was shown that, in cases of xanthoma, the ratios between the various lipoids and fats of the blood (cholesterol, cholesterol-esthers, phosphatids, neutral fats, etc.) are such that an unstable emulsion is formed; while the normal ratios, as present in the blood of persons without xanthomas, form stable emulsions. It may, therefore, be concluded that the simple fact of the pathologic variations in the proportions of fat and various lipoids in the blood of xanthoma patients promotes the tendency for these substances to leave the blood plasma, and thus paves the way to their pathologic deposition in the tissues. These studies have recently been rounded out by as yet unpublished investigations, in which the first experimental xanthomas were produced in guinea pigs. It is surely apparent that this work may well represent an initial step toward the more perfect understanding of the many internal diseases based upon alterations in the fatty and lipoid contents of the tissues (Niemann-Pick, Schuller-Christian, atherosclerosis, "fatty degenerations", etc., as well as possible internal xanthomas, as mentioned in the recent contribution of C. Guy Lane and Joseph Goodman).

Among the other types of local aberrations in the chemistry of the tissues, I shall merely mention the recent studies in the different forms of amyloid diseases of the skin, as reported by Koenigstein (1921), by Guttman, by Juliusberg and by W. Freudenthal. Their significance for the study of the factors producing amyloidosis of the internal organs needs no further emphasis. It is, however, an interesting fact that, unlike internal amyloidosis, cutaneous amyloidosis usually occurs in otherwise apparently healthy individuals, who are at any rate free from the chronic wasting diseases almost always associated with the amyloid changes of the internal organs.

In closing my remarks on metabolic disturbances, I may mention that in the very latest contributions, the relationship of the parathyroid gland, not only to cutaneous calcinosis, but also to certain cases of scleroderma (sclerodactylia), has been made clear. This connection is of practical significance, for the surgical removal of parathyroid tumors leads to marked improvement or cure of certain seemingly malignant sclerodactylias. I, myself, have seen the beneficial effect of this operative method in two cases.

In studying skin metabolism the spectroscopic analyses of J. Edward Gaul and his collaborators are surely interesting and will undoubtedly

prove important. They are in my opinion too recent to permit accurate estimation of their possible value.

I am certain that before this audience I need not dwell on the great general significance of many other fields of dermatologic research, notably in such problems as carcinogenesis, oxidation-reduction potentials.

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The next group of dermatologic advances which I wish to discuss does not represent fundamental or theoretical considerations, but includes certain therapeutic measures which are, for the greater part or entirely, empiric.

One of the greatest advances of recent years is to be found in the injection of gold salts in the treatment of lupus erythematosus. While there are many cases which prove refractory to this therapy, I am convinced that this procedure represents the best present method of treatment in the discoid form of erythematous lupus. In refractory cases, the alternate injection of gold salts and of silver-arsphenamine has impressed as of distinct value.

The use of gold is of benefit also in many cases of various types of tuberculids.

The therapeutic value of bismuth is becoming more and more apparent, not only in syphilis, but also in many skin diseases. It may be stated that the intramuscular injection of bismuth salicylate in oil has demonstrated its value in certain cases of lupus erythematosus and of lichen planus. It seems to me not improbable that this therapeutic agent will be found to be of greater value than heretofore supposed, not only in dermatology but also in certain internal diseases (Plaut-Vincent anginas, Weil's disease, etc.).

In the immunbiological therapy of tuberculoderms, I have been able to confirm the reports of those observers who have found the intracutaneous injections of minute quantities of gradually increasing doses of tuberculin to be of definite benefit. It is probable that improvements in tuberculins as suggested by the recent analyses of the tuberculin allergins by W. Jadassohn, will improve tuberculin therapy, not only of tuberculoderms, but perhaps also of certain internal tuberculoses.

My lack of personal experience precludes comment on the possible usefulness of such new remedies as chalmoogra oil (Lomholt), or the "salt-poor" diet of Gerson-Sauerbruch Hermannsdorff. I nevertheless believe that this diet and the use of salt substitutes, such as Titro salt, have proved their worth in certain skin conditions, including some forms of skin tuberculosis.

Germanin, in my limited experience, has proven itself to be the best available present method of treatment in pemphigus. But its effect is nevertheless most erratic, and in many cases it is useless, or seems even to aggravate the condition.

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Lack of time prevents me from even mentioning the newer advances in many forms of topical therapy. Moreover, the subject has been covered by J. Jadassohn in a recent brief but comprehensive summary which appeared soon after the death of this greatest of all modern dermatologists (Ref: J. Jadassohn, "On Dermatotherapeutics", Schweizer Mediz. Wochenschrift, 66:420, May 1936.)

Two topical remedies recently developed in the United States escaped mention in J. Jadassohn's article; and, for this as well as for other reasons, these merit inclusion here.

The first of these remedies is the so-called Compound Quinolor Ointment *(Antiseptic Ointment of Squibb), which was first recommended by S. M. Peck for the treatment of sycosis vulgaris. I have found this ointment to be of great value in the management of many cases of common folliculities of the beard, known vulgarly as barber's itch. I advise patients to employ it by application each day after shaving, by rubbing in, wiping off the excess, and covering the surface with a mild antiseptic dusting powder; a renewed and more liberal application is made at night, and a film of ointment kept on until morning. It is often advantageous to

*The formula for this ointment is:

Chlor-hydroxy-Chinolins	0.5	Oil of White Thyme	0.65
Benzoyl peroxide	10.0	White Petrolatum	
Encalyptol	1.3	Lanolin aa ad	100.0

combine this treatment with the usual hot-wet dressings of liquor calci sulfurati (solutio Vlemingkx), diluted with 15 to 30 parts of water.

The second noteworthy American contribution to topical therapy is the use of aloe vera in the treatment of ulceration in X-ray and radium burns. This treatment was first suggested by C. E. Collins and Creston Collins in 1935; and the advantages of its use have been confirmed in a most recent report by Carroll S. Wright of Philadelphia (J.A.M.A., 106:1363, 1936). Although this treatment is of such very recent origin, I believe that it has already shown itself to be deserving of a first place among the measures to be tried in the treatment of recent X-ray and radium ulcerations. The experience of my colleagues at the Skin and Cancer Hospital, and my own observations at Montefiore Hospital, indicate that the application of the fresh leaf itself is probably more efficacious than the employment of ointments containing aloe preparations. Preparations (Alvagel), and leaves can be obtained from the General and Marine Laboratories, Crisfield, Maryland and another preparation known as Veracal, is marketed by the Chemical Industries of California, of Santa Barbara, Cal.

As I approach the end of this communication, I am becoming more and more aware of the inadequacy of this summary, and of the many unpardonable omissions. I have not been able to discuss the value of such excellent measures as the local use of X-ray, even though I realize that this modality alone exceeds all others in its therapeutic effectiveness in so many different dermatologic conditions. I believe that the roentgenologic therapeutic methods now employed by American dermatologists are as good, if not better, than those used in any other country; and that it is to the great credit of George M. MacKee that this is the case today. I also regret the forced omission of many other forms of therapy, including such physical measures as hyperpyrexia (malaria, hot baths, and blankets, diathermy, short-wave, vaccines, milk injections, turpentine, pyreifer, etc.), which has its place not only in syphilis, but also in a number of skin diseases, as recently shown, for example, in the reports of Joseph Klauder of Philadelphia, and of I. Rosen and collaborators of New York.

At least two other forms of physical therapy have become valuable in local treatment of the skin.

The use of CO_2 snow is an American contribution and was first employed by William A. Pusey. This is a most effective method in the destruction of soft moles, of elevated hemangiomas, of warts, and of many other circumscribed skin affections characterized by the presence of redundant tissue. This procedure is valuable also in the destruction of fixed areas of discord lupus erythematosus, etc. Those who can secure so-called 'dry-ice' from dairies, confectioners, etc., in their neighborhood need no longer prepare their own CO_2 snow in the office. I simply order 10 cents worth of dry ice when the patient comes in, and always have more than enough CO_2 snow to treat any case.

The second therapeutic agent I shall mention is unfortunately not yet generally available in this country. This is Thorium-X either in solutions or in ointments. Preparations containing 1000 Electrostatic Units per ccm. can be applied to the affected skin in the same way as one applies ordinary ointment dressings or tinctures. This radio-active substance emanates alpha and beta rays, and thus produces effects on the skin similar to very superficial X-ray or Grenz-ray effects. The application of these Thorium-X preparations is of great benefit in many itchy and eczematous dermatoses, in pruritus ani, pruritus vulvae, in scrotal eczemas, in dermatoses of the eyelids, etc., in resistant patches of psoriasis and in a great number of other skin affections where X-ray is not available or is, for any reason, contraindicated.

The treatment is not dangerous and can if necessary be repeated many times (at least 10 to 15 times) in most cases. It is probably about as safe and superficial in its action as Bucky rays, but just as in these latter it must always be remembered that one is dealing with a radio-active substance, which must be used with knowledge and caution, and only by experienced physicians.

The factor in Thorium-X application is probably due both to the superficialty of its action and to the fact that it has a half-life of only about 6 days and rapidly loses its potency. For this same reason it is, unfortunately impossible

to use preparations which are not freshly made up from element isolated within a few hours or days before application. It is regrettable that for this reason the advantages of Thorium-X therapy will not be generally available to physicians in the United States until some American company decides to manufacture this therapeutic agent. I feel that the absence of this product represents a deplorable deficiency in our therapeutic equipment. (See the Year Book of Dermatology and Syphilology, pp. 356, 357, and 358; 1932; and the same publication p. 295, 1933.)

I feel that I cannot close without at least a brief discussion of endocrinologic therapy in dermatology. Although the results have as yet been meagre, I am firmly convinced that this form of therapy promises ultimately to dominate in the treatment of skin diseases. A hint of the possibilities of hormonal therapy may be gained by consideration of the above-mentioned effects of parathyroid in sclerodactylia, and of the newer attempts in the management of acne vulgaris with anterior pituitary extracts and with estrin. There can be no doubt that acne vulgaris, certain forms of seborrhein dermatitis and of seborrheic alopecia, are intimately connected with endocrinologic effects. And, as corrollary to this statement, there can be no doubt that the hormonal approach is the method of greatest promise for the future. (See Acneform Eruptions, with Remarks on Acne Vulgaris and Its Pathegenesis. N. Y. State Journal of Medicine, 34:Nov. 1, 1934).

Despite this expression of optimism, I must hasten to confess that I am not too enthusiastic regarding the present methods of hormonal therapy in acne vulgaris. Estrin, by mouth and by injection, as well as injections of anterior pituitary, have helped only a very small number of my cases; and the great majority has not responded to endocrinologic forms of treatment. I have even had the impression that some cases definitely exacerbated under estrin therapy. Certainly this treatment still falls far short of X-ray and other older methods, which yield such excellent results in over 90% of acne cases.

I shall close my remarks with the mere mention of two of the very latest contributions in the field of dermatologic endocrinology.

The first is that of Bernard Zondek, who reported that the inunction of salves containing estrin led to absorption of the hormone and exercised general and systemic hormonal effects on guinea pigs; and that the local application of estrin in ointment to the affected skin areas benefited certain cases of acne vulgaris in young women.

The second contribution is that of W. Jadassohn, and is, as yet, unpublished. It concerns the demonstration that inunctions of estrin ointment exercised a local effect upon the mammillae of guinea pigs. The hormone is absorbed, and produces, not only general effects as described by Zondek, but also local effects which promote the growth of the mammilla treated.

These animal experiments of Jadassohn, demonstrate the percutaneous absorption of hormones, and the possibility of localized hormonal treatment of the skin; and serve as a theoretic basis for the observations of Zondek, and for further work along these lines.

With advances of this type, and with the unprecedented rapid increase in knowledge, not only in dermatology but in all fields of medicine and the related sciences, it is quite probable that the greater part of my discussion this evening will soon have become obsolete. And in saying this, I feel that I am expressing my great confidence in the future progress of dermatology, and thereby sounding the most optimistic note. Readers desiring more information on the present subject are most fortunate in now having available the new excellent and critical compilation of W. Noel Goldsmith, (Recent Advances in Dermatology, P. Blakiston's Son & Co., Philadelphia, 1936.)

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Gastro-duodenal Ulcer; Etiology, Treatment and End Results of Treatment*

By BURRILL B. CROHN, M.D.
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IT WOULD seem that the problem of gastro-duodenal, or peptic ulcer, becomes daily of greater rather than lesser importance and interest. Originally a thorn in the side of the internist who could neither understand its etiology nor control the permanent end-results of treatment, it has embattled the surgical profession in often bitter and acrimonious disputes, invaded the compensation courts as a frequent cause of disability, interested insurance actuarians in its effects upon longevity and morbidity, and become an increasing economic burden to the state and to its hospital ramifications. Bashford and Scott[1] have demonstrated in British Post-Office employees that ulcer causes a definite loss of working efficiency. Thus,

31.6% showed an average annual incapacity of 30 days.

27.7% showed an average annual incapacity of 14-28 days.

17.7% showed an average annual incapacity of 7-14 days.

23.0% showed an average annual incapacity of 1-7 days.

Whether peptic ulcer is becoming more frequent is a question; certainly the assistance of roentgenography has made its recognition a matter of greater ease. Increasing maturity and knowledge of its clinical manifestations had brought to light many cases previously overlooked. The remark of Christian[2] in 1929, that four times as many cases were being treated in the wards of the Peter Brent Brigham Hospital as were formerly seen is significant of increasing recognition, if not of increasing incidence of this disease.

Man is the only animal regularly subject to chronic peptic ulcer. Since man is characterized by intelligence and emotionality, it is plausible to link the psychic and emotional activity of the human to the incidence of peptic ulcer. Just as modern historians of the school of Beard and the Adamses view the course of events entirely in the light of their economic interpretation, so we may well interrogate the so-called increasing incidence of ulcer as eventuating from changing economic conditions with their resultant nervous and emotional stresses and strains. The rise of industrialism, the problems of technocracy, the bitter struggle between the classes and the workers' political unrest, in a degree never before seen in history, may well be the source of increase of some of the diseases of civilized man.

No one need be reminded that life in the present disordered world of political and class chaos is a vastly more strenuous and nerve-straining affair than in the mid-Victorian peacefulness of not so long ago. The discord in the political and economic world, and in family life of this day must reflect itself in the psychic activity and the cerebral and autonomic nervous system of its object, man; is it too far a cry to reconsider the etiology from such a neurogenic viewpoint?

Pathologists the world over find in autopsy statistics an incidence of approximately 10% of active or healed chronic peptic ulcers. The entire alimentary tract is subject to ulcerations of unknown origin, aphthous stomatitis, esophageal ulcer, gastric, duodenal ulcer, non-specific ulcerative colitis and now, too, ileitis and jejunitis. The type of lesion is always an ulcerative one, the variations in course and pathology depending upon what digestive fluids serve that particular segment, what are the factors of secondary infection. In the esophagus, stomach and duodenum the acid peptic chyme predominates, in the small intestine, tryptic activity. In the

*Presented before 12th Clinical Congress, New Haven, September 22-24, 1936.

terminal ileum and the bacteria-laden colon, infection soon assumes the more prominent role, though ulceration and hemorrhage may precede by months the infective colitis.

Always before the sphincters the disease occurs in greater incidence, before the cardia, before the pylorus, in the terminal ileum just oral to the ileo-cecal sphincter, before the recto-sigmoid and anal sphincter. Two common denominators cover the entire alimentary tract, the autonomic nervous system and the digestive fluids. Function, secretion, motor activity are under the direct control of the para-sympathetic — sympathetic nervous pathways; digestion proceeds under the influence of enzymatic activity. Somewhere between the two, ulcer arises.

Practically all of these diseases mentioned occur in young people, or at least originate in youth and are or may be carried over to later adult life. They arise in full-blooded youth, that most emotional period of life. Just as the various classes of insanity most commonly arise in youth, so also may we not at this same period expect diseases of that other nervous system, the sympathetic system?

Experimentally, gastric erosions and ulcerations have been repeatedly produced by sections of the vagi, (Zironi[3], Van Yzeren[4], Ophuls[5]), by stimulation of the vagi (Keppich[6]), by extirpation of the celiac plexus (Gundelfinger[7]) and by various methods that either stimulated or paralyzed the vagus or the sympathetic nerve fibres. True, the ulcers so produced in animals were not analogous to those in man, but occurred sufficiently often to warrant respectful notice even though the results have been inconsistant. Functional derangements may well occur in the control of the autonomic nervous system over secretion and motility of the stomach. That such a disordered control might result in ulcer was hyopthecated by Von Bergmann[19] who visualized a localized ischemic spasm of the gastric or duodenal mucosa with diminished local resistance to peptic erosion by the overexcited vagal influences upon secretion.

It has been well shown that the immediate control of the autonomic nervous system rests in the diencephalon, more particularly in the hypothalamus and in the cells of the tuber cinerem. Beattie has shown experimentally that stimulation of the hypothalamus increased peristalsis of the intestine and of the stomach and caused an increase of gastric secretion. Section of the vagi destroyed this effect. Kobat, Anson, Magoun, and Ransom[8], showed in cats direct inhibition of tone and peristalsis following hypothalamic stimulation, proving a very direct relationship between the midbrain and the sympathetic nervous system.

Carrying this reasoning a point further, it has been shown by Keller[9] that experimental injuries to the midbrain resulted in dogs in marked hyperemia of the gastric and duodenal mucosa, even to the point of extreme congestion and frank hemorrhage, and in several animals multiple erosions just proximal to the pylorus were produced. Repeating this experiment with monkeys, mucosal erosions were created in five animals by hypothalamic injuries (Hoff and Sheehan[10]).

Watts, has shown a definite influence of the cerebral cortex over the intestinal function. By stimulating the premotor area of the cortex, intestinal rushes even to the production of intussusception can be reproduced. Thus it would seem that areas of the cerebral cortex can probably through the medium of the hypothalamus and the autonomic nervous system influence the alimentary tract.

Most important of all are the observations of Harvey Cushing[12]; three cases of cerebellar tumor subjected to operation were found at autopsy to have suffered an early fatality from perforating lesions of the esophagus, stomach or duodenum. Stimulation of this hypothetical para-sympathetic center was produced by intraventricular injections of pilocarpin and pituitrin resulting in increased gastric motility and gastric hypersecretion. In the opinion of Cushing[12], these observations and effects lend support to the proponents of the neurogenic theory of ulceration sponsored by Rokitansky[13] and Virchow[14]. To quote his own words: "Those favorably disposed toward the neurogenic conception of ulcer have in process of time gradually shifted the burden of responsibility from the peripheral vagus to its center in the medulla, to the midbrain, and now to the interbrain, newly recognized as a highly important long-overlooked station for negative impulses easily affected by

psychic influences. So it may easily be that highly-strung persons who incline to the form of nervous instability classified as parasympathetic (vagotonic) through emotion or repressed emotion — are particularly prone to have chronic digestive disturbances with hyperacidity often leading to ulcer".

Up to this point the experimental physiologist can carry us, up to the midbrain and the cerebral cortex. Now steps in the psychologist and the psychoanalyst, and the students of anthropological constitution, combining to study those exterior stimuli and psychic traumata which, originating in the world of personal conflicts, activate the brain and the psyche, disorder the sympathetic ganglionic cord and so react upon the physiological function of the alimentary tract. Eppinger and Hess[5] emphasize the vagotonic individual as prone to ulcer, excitable, hypersensitive, with cold clammy hands, spastic constipation, exaggerated reflexes, hyperacidity and suffering vasomotor instabilities. Draper[16], has added an anatomical psychological and pharmacological constitution type, narrow jawed, high closely fitting teeth, narrow dental arch, high cheek bones with a labile excitable temperament and hypersusceptible to drugs. Thus, too, Winkelstein [17], speaks of the ulcer case as oversensitive to electrical stimulation of muscles, and exaggerated response to epinephrin and atropin.

If the ulcer constitution is thus hypersensitive and relatively poorly defined from exterior stimuli, then, when subjected to psychic trauma he may react, not with a functional disturbance of the intestines or the stomach, but the disturbance may be carried a step further to the production of ulcer. And this is exactly the theme of Eli Moschcowitz[18], who has reviewed the hypothesis of the psychogenic origin of organic disease. Not alone Grave's disease, but also ulcer may be the result of the interaction of psychic trauma and susceptible nervous constitution. He finds the psyche of ulcer patients more or less uniform; they are highly irritable, sensitive, self-absorbed, "all or nothing folk". They are ambitious, fighters, but suppress their emotions.

It is of interest to note that Rivers [19], reports that in a group of physicians who were specialists, 20% had ulcer. It is well recognized that doctors suffer very commonly from this disease. On the other hand, in the Far East, Himalayas, Japan, where the sands of life run more slowly, ulcer is an infrequent occurrence. In negroes in the South, Rivers [19] found only one possible ulcer in 200 colored hospital patients, and Boland [20] has similarly found the incidence of ulcers in the colored race a half of that for the caucasians.

Franz Alexander[21], carries the story still a step forward by finding by psychoanalysis in each ulcer case a psychic conflict between the necessity to give and the unfulfilled desire to be loved, with resultant overcompensation of which the vomiting of ulcer, or the constipation may be part of an oral regressive syndrome. Thus the extreme infantile receptive cravings create a strong feeling of inferiority leading to the typical mechanism of overcompensation.

If even laboratory experiments with their extensive systems of controls and checks give inconsistant results open to doubt and criticism, how much more difficult of proof would be the establishment of the relationship of psychic stimuli and organic disease.

Personally, I am very skeptical of the relationship between personality and sex suppressions, psychic discords and ulcer as a disease. The individual whose personal history and life is so uneventful that no conflict of desires and no dysharmonies exist is not even alive; to find such emotional problems or minor sex repressions is only too easy, but to attribute to them ulcer, must be, most often, non sequitur.

Nor do I think that one must go far afield to describe an ulcer psychology or constitution. For every organic case there are nine or more functional disturbances as seen in office practice. All of them are hypersensitive hyperirritable persons with problems and psychically at unrest. Nine react with flatulence, aerophagia, spastic constipation, subjective distress; one develops an ulcer. The X factor which makes one a victim of chronic indigestion and dyspepsia, the other an ulcer case, has not yet been found. Perhaps, as has been said by many other writers, the X factor is in the hypothalamus or the sympathetic para-sympathetic nervous system.

The local production of ulcer depends upon at least one constant factor, that is the presence of free gastric acidity. Critically analyzed by histamine test-meals, all gastric ulcers have free acidity; practically all duodenal ulcers show hyperacidity, most of them hypersecretion. A night Rehfuss curve taken during sleep from duodenal ulcer cases shows regularly a continuous hypersecretion of high acid titer. In reviewing the results of 600 cases of partial gastrectomy for ulcer, we have noted that where a successful postoperative anacidity obtains, no recurrence ever takes place. All subsequent recurrences or anastomotic ulcers occur in those cases where gastric acidity is retained.

Experimentally, the relationship of acid to ulcer has been conclusively shown. In the Mann-Williamson[22] experiments, wherein the bile and pancreatic secretion were diverted to the ileum, thus depriving the upper intestine of its normal neutralizing defense, ulcer occurred in 14 of 16 animals in the jejunal loop adjacent to the pylorus. Mann and Bollman[23] further demonstrated the progressive susceptibility of the small intestine as one works distally. When exposed experimentally, by anastomosis, to the direct action of unneutralized peptic juice, the duodenum was least, the jejunum more so, and the ileum most susceptible to the creation of ulcer by corrosive action of acid and pepsin upon an exposed segment of normally alkalin intestinal mucosa.

Elman and Hartman [24] produced in 6 dogs a spontaneous peptic ulcer of the duodenum by experimentally diverting and causing the continuous external loss of pancreatic juice. A gastric ulcer was similarly produced by Hoerner[25]. In a personally observed case of pancreatic cyst in an adult with marsupialization a permanent fistula developed which could not be closed. Death resulted from a perforating duodenal ulcer, thus faithfully reproducing the experimental conditions and observations of Elman and Hartman[24].

All other factors in the production of ulcer are of secondary importance or secondary to the ulcer. The gastritis of Konjetzny[26] is probably the concomitant and result of the ulcer rather than its cause. The whole problem of gastritis, its pathology and its clinical manifestations are still very nebulous. The normal histology of the stomach in the various decades of life is still to be determined. That occasionally a severe suppurative gastritis or duodenitis can produce acute multiple ulcerative erosions of the stomach or duodenum is accepted, but this is not the correspondent of the chronic callous ulcer, as seen clinically.

The bacterial hypothesis of Rosenow[27], whose work has been so ably repeated by Haden[28], is most striking. However, the finding of streptococci in human ulcers does not establish their causal relationship, nor are the experimentally reproduced acute fundal erosions in animals identical or even analogous with the chronic peptic ulcer of man.

Occasional cases of traumatic peptic ulcers have been noted. Direct or even indirect trauma to the epigastrium or the body may produce within 24 hours a bleeding ulcer of the stomach or the duodenum.

The Treatment of a Peptic Ulcer

That healing can take place is now beyond cavil. Time was when many skeptics thought that even in the intervals between attacks the ulcer lay open though dormant. The fact that approximately 5% of autopsies show healed scarred ulcers is an obvious token of their reparative ability. Roentgenologically the diminution of the size and the depth of a penetrating niche on the lesser curvature can be satisfactorily demonstrated 'till no lesion is further demonstrable. The average period of healing is 3 to 4 weeks.

We have further clearly proven that ulcers heal by studying resected specimens 2 to 3 weeks after a hemorrhage. During this waiting period after a severe melaena conservative medical treatment was followed. However, the hemorrhages having being repeated constituted a clear-cut indication for operation. The resected specimens so gained showed filling of the crater with granulations and beginning complete epethelial regeneration.

But ulcers are capable of repeated recurrences always at the same site, frequently at given period times of the year, thus affording a given life-cycle of ulcer. Whether the recurrences ap-

pear once in 3 months, or once in 6 months or after 20 years, the possibility of recurrence is always to be borne in mind.

Treatment therefore aims at immediate alleviation of symptoms, at healing of the defect in the stomach or duodenum, and at permanancy of that result, that is, prevention of recurrence.

The usual conservative treatment consisting of a modified Sippy diet suffices for the average case. The basis of the local treatment is the use of milk, cream and eggs and cereals, aimed to neutralize the free acid of the gastric secretion and to allay, by soft easily digested foods, the irritability of the gastric wall. Thus also is the gastritis mollified. Frequent feedings of highly protein foods, administered every 1 to 2 hours, with the intermediate use of moderate doses of alkaline powders, causes a continuous neutralization of the free acid of the chyme, so that throughout the day the stomach is washed by a pabulum in which free acid has been adequately neutralized. That such neutralization takes place can be proven by inserting an indwelling Rehfuss tube during such a typical day. (Crohn[29]; Wosicka and Emery[30]). Properly administered, free acid is absent except for occasional short intervals before feedings. The alkaline powders are a necessary adjunct; they should be given in small doses, 15 to 20 grains, so as to avoid the secondary reaction of acid production which accompanies excessive dosage, and to prevent alkali intoxication when absorbable alkalies are used.

The use of non-absorbable alkalies such as calcium carbonate or the triple phosphates of ammonium are often advisable. They act as adequate antacids and afford an ample substitute for sodium and magnesium salts when alkali intoxication is threatening, that is, headache, malaise and loss of appetite.

So also the colloidal salts of aluminum, acting as absorbents of acid afford adequate substitutes for the soluble alkalies. Various preparations are on the market, most of them of so vile a taste as to make them repulsive, but others in powder or suspension forms are very acceptable.

The dietary treatment should be continued strictly for four weeks, more leniently for several succeeding months. In the latter period the diet is liberal and tasty including meats, pureed vegetables and cooked fruits, always maintaining an adequate protein quotient, so that no patient need complain of sameness or lack of choice. Weight must be retained by adequate feeding since study has shown that a weight loss of over 20% leads to a high mortality in ulcer cases. (33 1-3%). To be confirmed, Jama, '36-106-459.

The ambulatory treatment of the ulcer patient suffices in the largest majority of cases. In fact, the arduous necessities of life today make it imperative that a man be maintained as a functioning member of his family and of the state where such a contingency is imperative. Where complications exist or threaten, the course must be modified and bed rest insisted upon; otherwise the ambulatory treatment is satisfactory and gives good results. Better to allow a man with responsibilities and anxieties to retain a moderate control of his affairs, than to tie him up in a bed, fretful and restless and anxious, thus continuing the very agencies that probably incited the ulcer to activity. The economic depression throughout the world has probably not only increased the incidence of ulcer, but has made more difficult the carrying out of a restful period of healing. Most patients could not be hospitalized if we would. However, intractable ulcers and the existence of complications often call for protracted bed rest. Here not only are the dietary restrictions enforced in the strictest manner, but visitors and business are excluded and sedatives can be more freely utilized. Since we are inclined to believe that vagus hyperactivity and cerebral overstimulation are causally concerned in the etiology of the ulcer, sedation of the nervous system is clearly indicated. Beattie[31] has indicated that the barbiturates act upon the hypothalamus as a sedative, therefore their use in ulcer therapy is to be encouraged.

In severely intractable ulcers I find the milk drip method of Winkelstein[32], of great value. The continuous drip of milk at the rate of 40 drops a minute through an indwelling intragastric catheter or Levin tube maintains a constant buffer action in the gastric lumen. While the Sippy dietary method accounts for free acidity only during the day, giving free play to its baneful activity during the long night, the milk-drip method neutralizes the continuous acidity night

and day. Anyone who studies the high continuous acid secretion of a duodenal ulcer case during the night must be convinced of the efficacy of a drip treatment that combats this nocturnal secretion of hyperacid titer. Often a compromise is possible between the ambulatory day period of dieting and the nocturnal drip method. Patients may be allowed to continue at their activities, though dieting throughout the day. At night, the patient is taught to pass his own Rehfuss tube and institute his own drip method. The assistance of a nurse or of a member of the family is often solicited.

The immediate effects of the drip method are excellent and well applied to severe and intractable cases, particularly where night pain is a severe symptom. The late results over a period of years are however not so much better as to warrant an enthusiastic and uniform employment of this rather arduous procedure. Recurrence are common with this as with all other methods.

The employment of a continuous drip of colloidal aluminum hydroxide as advocated and practised by Rowland[33], seems logical though hardly to offer any advantage over the milk drip method. However, I have had too little experience with Rowland's method to pass judgment, even though his results are reported as promising.

With other newer, or shall I call them newfangled, methods of ulcer treatment, I have little sympathy. Mucin has been warmly advocated in the past; most preparations are nauseating and their results and their employment disappointing. I doubt that the reported deficit of mucin in ulcer cases is a reality or a factor in its production or treatment. (Anderson and Fogelson[34]).

The intravenous use of sodium chloride or of sodium citrate is illogical and has never gained popularity except with overzealous practitioners who have more to gain personally than the patient.

The injection, intramuscularly, of non-specific proteins or other chemical agencies were long ago advocated by Holler[35] and by Pribram[36], and reported from the Continent with some enthusiasm. The method went into desuetude with time probably due to its own inadequacies but has been revived of late in the form of such preparations as synodal and histidin, known to the trade as larostidin. I have failed to find anything of value in these agencies. Reports in the literature to date are very guarded by men who value their professional reputations, very enthusiastic by practitioners who stand to gain most by this newer method of intervention. The use of histidin is based upon the hypothesis of Aron and Weiss[37], who observed that in Mann-Williamson dogs, histidin, an amino-acid by-product of protein digestin, was diminished in the intestinal segment subject to experimental ulceration. It was held by them that the injection parenterally of histidin replaced the loss of amino-acid in the affected segment of intestine and thus prevented in some instances the formation of the experimental ulcer, or tended to its healing when formed. It does not seem logical that the daily injection of 5 cc of a 4% of histidin can replace the extensive loss of amino-acid that results when the pancreatic and bile ducts are transplanted to the ileum of the dog. However, reports of its clinical use, as published by Bulmer[38], Rabschow[39] and by Rafsky[40] are guardedly equivocal, while enthusiasts such as Manginelli[41] successfully employed histidin with success in ulcer cases, the gastric neuroses, angina pectoris and cholecystitis. Needless to say, controls are lacking. The more critical and better controlled scientific observations of Sandweiss[42] failed to warrant the routine employment of this injection method. The expense involved, the daily visits, the local and general reactions and the high percentage of recurrences after six months of this treatment fail to establish a case for histidin as against the more orthodox conservative dietary routine. The treatment by injections smacks more of the continental fondness for proprietary drugs and redounds probably more to the benefit of the commercial houses that promote them than to the welfare of the patient.

Recurrences After Treatment

To "cure" an ulcer upon a given type of treatment with almost any method that is based upon diet and rest is an easy matter, succeeding immediately in about 93% of cases (Crohn[29]). To perpetuate that result is the problem. Recurrences are prone to follow, sooner or later, usually sooner. Several factors besides periodicity favor

a recurrence of the ulcer. Excessive of food or drink, disregard of dietary precautions, predicated upon a short memory for pain, are the most usual causes for recurrence. Like the obstetrical patient, few persons can long remember the distressed days and painful nights of the period of ulcer activity. People yield easily to the temptation of rich or spicy delicacies; indigestion, hyperacidity and ulcer recurrences are prone to result.

The abuse or even the use of alcohol is injurious to the ulcer diathesis. Gastritis is intensified; a single orgy of drinking is often accountable for a recurrent ulcer. It is better that an ulcer case abstain completely; small amounts of beer are hardly injurious during prolonged remissions, probably even a weak high-ball in carbonated water, but loose drinking or undiluted hard liquor in the neat form or as a cocktail is anathema.

The role of tobacco in ulcer is a debatable one. That tobacco, particularly cigarets, increase gastric secretion, produce acid hypersecretion and pylorospasm has been experimentally shown — can be demonstrated in any Rehfuss test-meal experiment — and is commonly seen clinically in the amateurish catastrophies of adolescent beginners in the art of smoking. In fact, cigaret smoking can produce, in a susceptible individual the entire picture of a pseudo-ulcer, even to the duodenal cap deformity as a result of smooth muscle spasm in the presence of nicotine paralysis of the sympathetic nerve synapses. Such cases are difficult to recognize clinically and to differentiate from true ulcer; the history of continuous abuse of cigarets such as is commonly seen in men, and now also in women, should lead one to suspect nicotin intoxication rather than ulcer. In any ulcer case that is rebellious to treatment — suspect nicotinism. Many such a case will clear up in a few days on the abstention of smoking. Cigars and pipes are less objectionable.

So too I believe that smoking not only aggravates ulcer symptoms but also creates recurrences. Scientific proof of this statement I cannot offer for the obvious reason that so many other factors enter into the persistence or recurrence of ulcer symptoms. I am not alone however in the profession in believing that smoking is deleterious to ulcers and I feel so convinced of this idea that I insist upon all ulcer cases either completely eliminating cigarets and smoking or of cutting them to a minimum.

One of the most common causes for ulcer recurrence is an upper respiratory infection, mild or severe, a rhinitis, a sinus attack, or grippe or tonsilitis; they all have an extreme tendency to induce a lighting-up of a healed ulcer process. To retain an ulcer case as cured is almost impossible in the presence of recurrent suppurative sinus attacks, of follicular tonsilitis or repeatedly recurrent head colds. Even a pleurisy or a pneumonia may result in a recurrence of hitherto dormant ulcer symptoms. The upper respiratory infection probably acts in the nature of an allergen to the bacteria resident in an ulcer site, rather than as a direct infecting agency. The clinical result is however the same. Focal infections must be eradicated where possible; this does not mean that every tonsil must be removed nor every cheesy deposit regarded with alarm. But tonsils subject to recurrent inflammation, and particularly nasal septum deviations and sinus foci of suppuration should be eliminated where possible.

Excesses of mental and physical labor should be avoided by the patient lest fatigue or exhaustion induce a recurrence of symptoms. Enough has been indicated in the probable relationship of nervous strain, the psychic make-up of the patient, and in the autonomic nervous system in its relation to ulcer, to warrant mental peace and rest less the ulcer return. Vacations and change of air and of atmosphere, mental and climatological are beneficial and often healing. Crises in life, bad news and mental anxieties often initiate recurrences.

Excessive sports and violent games, as well as fatigue, lead to recurrences. Violent games such as hand-ball and competitive sports should be interdicted. Not, however, golf.

Complications

The one complication that presents a problem in medical treatment is hemorrhage. Approximately 25% of ulcer cases at some time in their life history suffer from gross hemorrhage, hematemesis or melaena. The hemorrhage is frequently severe, alarming and threatening to life, presenting one of the real critical urgent situ-

ations in the practice of medicine. Severe as is the situation at the moment of greatest exsanguination, the picture should not be met with too great an alarm or panic. In my own experience with gross hemorrhage only 4.2% of these emergencies end fatally, when conservatively handled. Since only 25% of ulcer cases bleed, this gives a total mortality of hemorrhage in ulcer of less than one per cent.

Hurst[43] estimates a similar fatality in 2.5% of severe ulcer cases under hospital care, Menlengracht[44], 1%. While I am conscious that much higher figures have been reported by other writers (Christiansen) I believe, upon my own experience, that under careful conservative treatment, in which panic procedures are avoided, the mortality is extremely low and the outlook good. Some difference of opinion exists as whether to feed or not to feed a patient during the actual bleeding period. Hurst[43] starves his patient for three days, as is the practice at the Mayo Clinic. I have tried both ways; after careful observation I am convinced that complete rest of the stomach with abstention of all food is the advisable course. Very recently Meulengracht[44] has again advocated full feeding during the active hemorrhage on the basis of neutralizing the free acidity and preventing digestion of the adherent blood clot in the open vessel or vessels. He attributes his low mortality (1%) to this habit of feeding liberally such bleeding cases. I still prefer 3 days of starvation, with the accessory use of a continuous intravenous drip of 5% glucose. In this way fluid and available sugar are introduced parenterally in sufficient amounts to carry the patient over a critical period.

Opium and barbiturates should be liberally administered so that the patient, mentally and physically, should be at complete rest and fully relaxed. To enter the room of a hemorrhage case and find him awake and alert is a misdemeanor on the part of the staff and the nurse.

Again I find myself in accord with Hurst[43] in counselling against the too free use of transfusions of blood. Severe reactions may ensue initiating more harm than good. With the patient well narcotized one may await a drop of hemoglobin to the thirties or a fall of systolic blood pressure to below 90 mm., before feeling impelled to institute a blood transfusion. With vigilance and skill and without alarm, hemorrhage cases can be handled with the loss of only an occasional unfortunate mishap.

Meulengracht[44] has also recently noted an elevation of the blood urea in hemorrhage cases. This he attributes to kidney damage from the toxins resulting from tissue damage. This acute azotemia in severe hemorrhage has been confirmed by Christiansen[45], by Holmgrew[46] and others. Its significance and prognostic importance await further study. When anacidity is not produced, anastomotic ulcers occur in about 6% of cases.

The mortality and risk is much too high for routine employment of operative procedures, recurrences far too many for reassurance of durable cure. Surgery should be restricted to well chosen cases and employed only as a relief from conscientious and protracted medical treatment which fails of its purpose.

The problem of ulcer is truly one between a hypersensitive, irritable, often neuropathic individual, with his acid gastric factor, and his physician. The internist can "cure" the ulcer; the permanency of the result lies with the patient. In the long run it is a problem of the patient with himself. Given a docile individual, mentally well-disciplined, willing and able to cooperate over the course of his lifetime with dietary precaution, with avoidance of nervous anxieties and excessive work; given a patient who learns the philosophy of life and can take reverses and conflicts in his stride, and a durable result is most likely. Given again a patient who can prevent recurrent infections, who realizes the dangers of the abuse of alcohol and tobacco, and a good prognosis as to time and as to cure are vouchsafed.

To the patient we must say, as we say to a diabetic,—"Once an ulcer case, always a potential ulcer case", and so having led the patient out of his ulcer crisis and guided him in the path of proper care and precaution, we return the problem to himself for the durability of his well-being.

Results of Medical Treatment

The immediate end-results of medical treatment are most satisfactory; the remote follow-up

of ulcer cases disappointing. There is no dodging the fact that most ulcer cases medically treated recur in time, sooner rather than later. Most of the recurrences take place within the first year (31.4%); within 1 to 4 years approximately 50% show recurrence of ulcer and of symptoms. After 3 years only 41.2%, after 4 years of follow-up study only 27.3% remain cured (Crohn[21]). These figures are quoted from experience with ward cases representing the poorest class of clinical material, subject to privation and incapable, because of strained economic circumstances, of observing the proper dietary precautions and avoiding excesses of physical work and nervous anxiety. These estimates were made during the pre-depression period. Is it likely that the economic debacle has improved them? The figures of Friedenwald[47] and of Sara Jordon[48] are better since they represent private practice with its greater luxuries and ease. But the picture is none too rosy.

For intractable cases, or those suffering complications such as repeated hemorrhage, pyloric stenosis, perforation or carcinomatous suspects, surgical intervention is highly advisable, if not most often obligatory. When operation is indicated, partial resection is the method of choice, given a favorable subject and an adept surgeon. By producing an anacidity in all gastric cases and most (66%) of duodenal ulcer cases, recurrences of ulcer are avoided. Women fare better than men, since recurrences in women, after resection are most exceptional. The partial resection for ulcer is far more satisfactory than gastro-enterostomy with its high percentages of anastomotic recurrent ulcers, a rate varying according to the several writers of from 2 to 30%. While the operative mortality resection (11% to 14%) is higher than that of gastro-enterostomy (2% to 8%), its end-results, when an anacidity is produced, is permanent cure.

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Poliomyelitis*

DR. THOMAS M. RIVERS

Member of the Rockefeller Institute for Medical Research, New York

Despite its relatively insignificant economic importance, poliomyelitis holds a prominent place in medical research. It holds this position because of its lasting after effects. The world is more disturbed over one living child crippled by poliomyelitis than over ten children killed by smallpox. These young withered arms and legs serve as a constant spur to the physician's desire to conquer the disease; and progress is being made.

The etiological agent, a 12 uu virus, has been known for thirty years yet its nature is still unknown. Although one strain has been shown to pass through the skin of monkeys, and although some workers propose an entrance through the gastro-intestinal tract, most theories point to the nose as the portal of entry. The virus reaches the nasal mucosa by droplet infection. It enters the olfactory nerve and passing along the axone reaches the bulb. From here it spreads into the brain, usually omitting the cerebellum, and finally lodges in the anterior horn cells of the spinal cord. If the olfactory nerve is cut the infection does not spread from the nasal mucosa to the brain or cord, nor does direct intravenous injection of the virus produce the disease without an intact olfactory nerve.

The result of invasion by the virus is necrosis of nerve cells, especially those of the anterior horn. The fever, sore throat, and other symptoms not attributable to nerve damage during the course of poliomyelitis may be due to invasion of cells other than nerve cells by the virus. The early, preparalytic symptoms are not characteristic and diagnosis is difficult. The disease might easily be mistaken for a severe cold. The paralytic stage may or may not occur. If flaccid paralysis occurs the diagnosis is established, but if it does not occur the diagnosis is vague because there are no laboratory methods for diagnosis. Antibody may not be demonstrable for months.

Treatment of poliomyelitis is not satisfactory. The general tendency is to use serum, although the great variation in individual susceptibility makes the interpretation of statistics difficult. There is some question whether the serum ever reaches the infected cells, whether the serum can pass the blood-brain barrier.

Although treatment leaves much to be desired prophylaxis is more satisfying. Serum is of doubtful value and vaccination, although sometimes effective, has been known to cause the disease. There is one method of prophylaxis which seems of value during epidemics, the hardening of the nasal mucosa to present a stronger barrier to the virus. Picric acid and sodium alum in 10 per cent. solution are mixed and painted on to the nasal mucosa every day during the epidemic and once a week for several weeks afterwards. The results are encouraging.

Thus one sees that the problems presented by poliomyelitis are gradually being solved. A few more years may see the disease well conquered.

*Abstract of paper presented before 12th Clinical Congress, New Haven, September 22-24, 1936.

Recent Advances in Diagnosis and Treatment of Peripheral Vascular Disease*

DR. LOUIS G. HERRMANN

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The phenomenal growth of clinical and laboratory observation has made possible great strides in the study of peripheral vascular diseases. As a result many traditional concepts have been overthrown, new methods of treatment have been devised, some of the old methods have been discontinued, other old methods have been resurrected. Apparatus has been developed which makes possible the detection of pathological vascular changes in the peripheral vessels long before the patient is incapacitated and in time to effect a cure.

By using the oscillometer and the thermocouple it is possible to differentiate between arterial and arteriolar occlusion. It is also possible to determine whether the occlusion is spasmodic or obliterative. The oscillometer indicates arterial elasticity while the thermocouple determines skin temperature which is a direct function of arteriolar flow. Finger tip temperature of 20°c. in a room temperature of 30°c. is considered normal. Vessels under temporary spasm will dilate within an hour if the temperature of the external environment is raised by wrapping the limb in blankets and hot water bottles. This dilatation will result in greatly increased arteriolar flow and raised skin temperature. In the case of obliterative change this does not occur. Since vasospastic disease does not yield to the treatment outlined below it will not be discussed further.

The three main considerations in the treatment of obliterative vascular disease are: 1, relief of pain; 2, prevention of infection; 3, stimulation of the spontaneous tendency for the formation of collateral circulation. The establishment of a collateral circulation can be greatly aided by subjecting the extremity to slow changes in the environmental pressure. The extremity is placed in a glass chamber having a snug sleeve and the pressure is changed from + 20 mm to — 80 mm mercury, in a cycle lasting 15 seconds. The pressure is negative for about 12 seconds and positive for 3 seconds. In a case of right iliac embolism the pain was relieved and the normal color restored in 45 minutes of treatment. True, the color faded when the leg was removed from the instrument and the pain returned after a few hours, but a second treatment relieved the pain in 3 minutes. A series of daily treatments restored circulation to a normal efficiency. Severely frozen feet have been saved by this method also. If infection has occurred the pressure treatment must be accompanied by hyperthermy.

One can treat peripheral vascular disease by three methods, chemical, surgical, and physical. The last method, consisting of passive vascular exercise by light, heat, and pressure, is the most effective. It is important, however, to make use of every means at hand. Drugs causing peripheral spasm, such as nicotine, must be prohibited. Infection must be avoided by scrupulous cleanliness. Circulation must be encouraged by removing tight shoes and garters and by placing the patient in a horizontal position with the end of the affected limb five inches below the heart line. This prevents engorgement but tends to keep the vessels full. These and many other common sense principles, when accompanied by careful treatment in the pressure chamber, will produce better and better results in the treatment of obliterative vascular diseases.

*Abstract of paper presented before 12th Clinical Congress, New Haven, September 22-24, 1936.

Injuries of the Bones and Soft Tissues of the Face*

DR. VILRAY P. BLAIR
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Face injuries are not usually fatal, but they are incapacitating and often permanently disfiguring. In many cases the distressing after effects could be prevented if the injured structures were restored to their normal position within two weeks after the injury, and were held in place firmly until healing had well started. By delaying restorative treatment more than two weeks the bones begin to heal in wrong positions and scar tissue forms where it is not wanted.

In treating fractures of the jaws it is well to remember that the jaws are excellent natural splints for each other. By wiring together the upper and lower teeth the jaws are held firmly in place in their proper positions, thus assuring a good bite when the bones have healed. Fixation can be removed as soon as the healing bones move with a slight spring.

Fractures of the upper jaw are mainly of three classes; transverse through the antrum, transverse through the orbit, and malar displacement. After these fractures the face contour could be remodeled and the thin bones held in place by packing the antrum with gauze. This facial molding should be done after the swelling has subsided. Naturally the nasal breathing space should be re-established as soon as possible. The rest of the work can be postponed for five or six days. As in the case of the lower jaw, the ultimate treatment in upper jaw fractures is fixation of the jaws by wiring them together.

Teeth serve also as an anchorage for fixation of nose fractures. There are several such fractures, but one particularly is interesting. A child falls forward and strikes its nose. Examination reveals no apparent injury, yet within a few weeks or months the nose begins to grow unevenly and eventually becomes greatly deflected to one side. This is due to a displacement of the nasal bones by the blow. As a result the cartilage on one side grows more rapidly than on the other causing the deflection. No deflection will occur if the bones are restored to position shortly after the injury. The only satisfactory treatment of face injuries is prompt restoration of the displaced parts. If allowed to grow out of place a long series of tedious bone chipping operations are necessary with results far from what could have been attained by prompt action.

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Recent Advances in the Study of Food Allergy*

DR. WARREN T. VAUGHAN
Richmond, Va.

Food allergy is increasing, probably because of the artificiality of present modes of living. Fortunately progress is being made in the diagnosis of the various allergies. Intermittent food allergy presents only a minor problem, for the offending foods can be detected by keeping a food diary whereon each type of food eaten each day is recorded. By noting the foods eaten on the days preceding an attack it is not difficult to determine which are prohibitive. Chronic allergy, however, presents a more troublesome problem, for the food causing trouble is usually

*Abstract of paper presented before 12th Clinical Congress, New Haven, September 22-24, 1936.

one of the common constituents of the diet and is often very difficult to remove completely. For instance, milk, eggs, or flour can creep into a diet hidden in some food mixture quite unsuspected so that the allergic attacks continue although the food is seemingly avoided. In such cases other diagnostic procedures are available; the skin test and the leucopenic index.

The skin test, to be safe, should consist of two parts: a scratch test followed by an intracutaneous injection test. The latter is much more sensitive and determines the less active foods. However, the most activating foods might cause an allergic attack even in the minute doses used in the test, so these foods are first determined through the cruder skin scratch test and are not used in the injection test. Due to the recent classification of foods into protein groups having similar allergic actions it is not necessary to test all foods eaten but only one from each group. Skin tests, however, still yield too many false responses, since they indicate not only present sensitivity but past or future sensitivity as well. To avoid these errors the leucopenic index is being used more and more as a test for allergic response.

It is well known that the white count falls markedly during an allergic response and that the degree of fall is proportional to the severity of the symptoms. Thus by making white counts after meals or after the ingestion of single foods the response of the body can be determined with a fair degree of accuracy. Within the next few years this method will probably be developed to give very reliable results.

The diagnosis of allergic reaction to foods is aided by the characteristics of the rash produced. This rash occurs usually on the flexor surfaces of the arms and on the neck and face. The eruptions do not weep, although they itch annoyingly. This reaction is called neurodermatitis and is easily differentiated from contact dermatitis, since the latter often weeps and is located on those parts of the body most likely to come in contact with sensitizing material.

Recently it has been determined that various types of dermatitis not of allergic origin are aggravated during an allergic response. In one case it was impossible to cure impetigo until eggs were removed from the diet. After the impetigo was cured and eggs were returned to the diet the impetigo returned also. In regard to eliminating a food from the diet it must be remembered that the offending material can enter the body through the lungs or skin as well as through the alimentary tract. Thus the whole subject of allergy is becoming more and more complicated as more is learned about it. At present the study of allergy is at the stage where the determination of basal metabolism was a few years ago. This has been simplified and doubtless allergy will become simpler within a few years.

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The Clinical Manifestations of Ectopic Gestation*

DR. WALTER T. DANNREUTHER
Professor of Clinical Gynecology, New York Post-Graduate Medical School

One of the most serious of the various types of abnormal gestation is ectopic pregnancy, for there is constant danger of hemorrhage. Ectopic implantation of the ovum usually follows a period of sterility which has been caused by infection. As a result of the infection the ciliated epithelium of the tubes is not completely regenerated, thus tending to slow or even stop the motion of the ovum towards the uterus and facilitating implantation if it becomes fertilized. This implantation can take place anywhere between the ovary and the uterus. The site of

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implantation is of great significance. If the ovum locates between the ovary and the ampulla the end result is usually tubal abortion with a single hemorrhage. This occurs in about 70 per cent. of all cases. If, however, the implantation is in the isthmus the embryo can not be aborted through the open end of the tube and hence erodes through the wall into the peritoneal cavity or down into the broad ligament. In the latter case the hemorrhage is controlled between the layers of the ligament, but in the former case the result is often severe shock or death due to the large hemorrhage. The other two types of ectopic pregnancy are called interstitial and tubo-ovarian. All these abnormal pregnancies have somewhat similar symptoms.

The general symptoms consist of missed menstruation, irregular bleeding, nausea and some breast fullness, paroxysmal pain with severe exacerbations, constant abdominal soreness to palpation between pains, occasionally fainting, and slight fever. The pain and soreness are due to peritoneal irritation caused by the hemorrhage. If any blood can be obtained and palpated between the bare thumb and finger it will have a characteristic velvety feel. The objective evidence consists of a sensitive mass occasionally palpable, pain on cervical manipulation, a rapidly growing and pulsating tumor, velvety blood, decidual cast, closed cervix, absent Hegar sign, moderate leucocytosis, evidence of internal hemorrhage, positive Ascheim-Zondec test, positive Cullen's sign, and blood in the cul-de-sac. Incomplete abortion and subacute salpingitis tend to have similar symptoms to ectopic pregnancy but can be distinguished from it. Incomplete abortion gives a different case history while in salpingitis the leucocytosis is very great.

Ectopic pregnancies can be grouped according to the degree of fall in blood pressure and the accompanying rise in pulse rate. Group I, a mild hematoma in the cul-de-sac, causes no pressure or pulse changes. Group II, repeated small hemorrhages seen mostly in ampullar implantation, causes slow fall in pressure and rise in pulse. Group III, a sudden, severe hemorrhage, causes profound fall in pressure and rapid rise of pulse. Group IV, a sudden hemorrhage into the broad ligament rather than into the peritoneal cavity, causes milder pressure and pulse changes. Group V, a sudden hemorrhage into the uterine cavity, causes almost no changes in the pressure or pulse. Group VI, early rupture with a single hemorrhage and abdominal implantation leading sometimes to full term, causes almost no pressure and pulse changes.

Any ectopic pregnancy, unless it aborts into the uterine cavity, must be operated upon. In order to reduce as far as possible the great dangers of operation the pre-operative care must be adequate, and painstaking. Absolute quiet, with considerable morphine to make relaxation certain, is necessary. Any activity, even coughing, can cause a resumption of hemorrhage, especially if a severe one has just occurred. This occurs frequently, since the physician is usually not called until the patient is weak or unconscious from loss of blood. External heat, horizontal position, and hospitalization are important. If a severe hemorrhage has occurred the patient must be moved with the utmost gentleness to prevent loosening of the clot and further bleeding. For the same reason no purging or cervical examination is permissable. Intravenous therapy tends to raise blood pressure rapidly and must be avoided. The blood pressure must be carefully watched. If it shows a decided rise after a half hour's observation it is wise to postpone the operation for an hour or two or even longer to allow the pressure to approach normal. However, if there is no rise after thirty minutes the operation should be undertaken immediately.

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"Medical Economics"— A Handbook of Nostrums

For some time physicians throughout the country have been receiving each month through the kindness(?) of some dealer in medical or chemical supplies a periodical called Medical Economics with the subtitle "The Business Magazine of the Medical Profession". It has previously been called by The Journal in editorial statements a "throw-away periodical". It has apparently little, if any, paid circulation although it is stated that the price is 25 cents a copy or $2 a year. It should be apparent to any one after glancing through the pages of any recent issue that this publication depends for its income and its circulation on the advertisements of great numbers of nostrums which from time to time have been investigated and rejected by the Council on Pharmacy and Chemistry of the American Medical Association.—J.A.M.A.

Practising Physician and Diagnosis and Treatment of Occupational Diseases*

DR. LEONARD GREENBURG
Executive Director, Division of Industrial Hygiene, New York State Department of Labor

The United States, up to 1900, had no laws arranging for the compensation of employees injured during working hours. The employee had to seek his own doctor and pay for all costs himself. The growing cost of living coupled with the increasing number of industrial accidents and diseases made this burden intolerable. In 1900 provision was made in some states to insure the employee against accident but not against disease. In 1911 the first compensation for an occupational disease was made. The present amount paid per year in New York State for this same purpose is $26,000,000.

Occupational diseases can be divided into several groups; infections such as anthrax of which there were 120 cases and 8 deaths in New York in one year, systemic poisonings such as benzol, carbon monoxide, carbon tetrachloride, and many others, irritants such as sodium hydroxide, and, finally, various skin disorders caused by friction. About 50 per cent. of all occupational diseases manifest themselves through a dermatitis. The next most frequent disease is silicosis, followed by lead poisoning, carbon monoxide poisoning, benzol and benzol derivative poisoning, friction troubles such as bursitis, and infections such as anthrax.

Diagnosis depends on a number of factors and since there are so many different and often obscure occupational diseases no one person can be an authority. There must be prompt publication of new diseases and diagnosis as well as avid scrutiny of the literature by the physician. The factors to be considered are: 1, the worker's occupation; 2, his normal surroundings while working; 3, the time sequence of events involved in the disease; 4, materials used or conveyed by the worker prior to the development of the disease; 5, special surroundings at the time the disease became prominent; 6, a thorough physical examination of the patient; and 7, correlation with other cases. After the diagnosis has been made the physician usually is required to report to the state his diagnosis and the probable duration and cost of treatment.

Since the most common diseases are dermatitis and silicosis a more detailed discussion of these follows. Dermatitis is caused by an infinite number of substances. A sensitivity to one or more of these substances usually exists and can be determined by the patch test. Those occupations in which the protective layers of skin are weakened, such as in dishwashing, show the greater percentage of skin disorders. A new cause of dermatitis manifesting itself in an acneform eruption is Halowax, a chlorinated wax used in radio construction. The end result of Halowax poisoning is yellow atrophy of the liver and glomerulo-nephritis. Silicosis is caused by quartz particles inhaled from the atmosphere and asbestosis by asbestos particles. These are the only two dusts causing pathological change in the lung. Silicosis is a chronic disease, lasting from 6 months to many years. The quartz particles dissolve in the alveolar walls and kill the phagocytes which have surrounded them. Fibrosis follows, first nodular, then confluent. Unless removed from the quartz atmosphere before the confluent stage is reached the patient does not recover. Diagnosis is made from the history and the roentgenogram. The presence of silica in the sputum or urine is of no significance. This disease must be differentiated from tuberculosis, chronic passive congestion, malignancy, polycystic lung, and myocitic infection. The presence of nodules in the lung is the best indication of silicosis. Individual susceptibility varies greatly, and the degree of disability depends on the amount of pulmonary reserve.

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Salient Experiences in Thirty Years Contagious Disease Practice*

DR. EDWIN H. PLACE
Physician-in-Chief, South Department, Boston City Hospital

The average medical student does not get adequate experience in school in the diagnosis and treatment of contagious diseases. As a result he is forced to learn during his practice from the cases he happens to encounter. A few of these facts regarding one or another contagious disease, which have been learned by practical experience and which are not as well known as they should be, are given below.

Epidemiological history may be misleading. During an epidemic of chicken pox it is customary to class any unusual cases as this disease although these cases may have all the characteristics of small pox. Such errors must be guarded against.

Diphtheria is becoming rare, yet it still occurs and must be considered in diagnosis of any sore throat. Phlegmonous diphtheria, a very dangerous type, is often confused with peri-tonsilitis. This error should not be made. The diagnosis of phlegmonous diphtheria is made on the dull red color of the throat, the soft, polypoid edema in the throat, the lack of difficulty in swallowing. The streptococcus infection is bright red, non-edematous, and swallowing is difficult due to the hardness of the swelling. Membranous diphtheria is not as often mistaken as the phlegmonous type. The saying that the membrane always starts at the tonsil and spreads outwards is wrong. However, if the membrane never reaches the tonsil the disease is not diphtheria. The invasion of the air passages by the membrane is indicated by stridulous breathing. Inspiratory stridor indicates high tracheal involvement, expiratory stridor indicates low tracheal or bronchial involvement, while double stridor indicates laryngeal involvement.

Retropharyngeal abscess is not as fatal as many believe if the proper precautions are taken. When palpating it is vital to be as speedy as possible to prevent asphyxia. Then, if the abcess is lanced and allowed to drain through the mouth with the body inverted, recovery is not at all uncommon.

One disease can modify another. This is well illustrated by the aggravation of chicken pox rash in those skin areas where there has been irritation, possibly due to a skin test of one sort or another. If the patient who contracts an exanthematous disease has just been vaccinated the eruption will be worst at the site of vaccination. Such vaccination wounds should be covered to prevent the person from touching the wound and transfering the vaccine to a skin eruption due to the other disease, otherwise severe complications may result at the site of transfer.

The diagnosis of mumps is often made too carelessly. Septic parotitis is often mistaken for mumps, despite the fact that the former can usually be rapidly reduced by milking the duct. During mumps an orchitis is more apt to occur if there has been a previous infection in the testicle, usually gonorrhea, or if the testicle is traumatized. To prevent trauma during mumps the testicles should be supported in cotton wool and urinary antiseptics should be used. Such treatment results in only 5 per cent. orchitis due to mumps.

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As a result of the new marriage law in Connecticut requiring blood tests of both persons concerned, from January 1 to July 6, 1936, the State Department of Health reports one blood test out of every 100 made at the department's laboratories has been found to be distinctly positive for syphilis.

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Endocrinology of Today
A Panel Discussion*

Dr. Roy G. Hoskins (Chairman), Dr. Fuller Albright, Dr. Edgar Allen, Dr. Earl Engle, Dr. Max A. Goldzieher, Dr. Raphael Kurzrok, Dr. Elmer L. Sevringhaus.

Ovary — It has recently been possible to study ovulation in the monkey by transplanting pieces of ovary to the eye where ovulation can be watched.

Cancer has been produced in rats who were members of a cancer strain. The neoplasm was produced by injecting large doses of the female sex hormone into male rats. The breasts grew and developed cancer. In the monkey, however, the same treatment produced hyperplasia but no malignant growths. The hyperplasia returned to normal upon discontinuing the injections. In the pregnant human the female sex hormone, though present in large quantities, is in a combined form and thus is unable to cause cancer. However, if the hormone is injected into women, one must not say that these injections are safe if no cancer appears in three years. A much longer period of observation is necessary.

In the human, ovulation can be determined by taking endometrial biopsies.

Pituitary — Several cases of sterility have been cured in a few months by the injection of small doses of anterior pituitary. Ovulation can be determined by the biopsy method. The occurrence of a sterile cycle is more common than was formerly believed.

In determining the relative efficacy of pure or mixed glandular preparations one must bear in mind that the body probably uses those substances of which it is most in need at the time.

Mammary Gland — The female sex hormone causes beginning proliferation of the mammary ducts while the corpus luteum hormone completes the work. Prolactin stimulates lactation. In about 80 per cent. of cases of non-lactation 9 days after parturition the lactation, producing good milk, was started within 36 hours of the first of two daily injections of 125 pigeon units of prolactin.

Thyroid — Thyroid preparations are at present the most efficient means of regulating menstrual irregularities. Thyroid need not be given if there is no indication of a hypothyroid condition. If excess thyroid is given exophthalmic goiter is never produced, although thyroid poisoning may result. Thyroid exerts a stimulating action on all the glands of the body.

Adrenal Cortex — In addition to its function in regulating the salt and water balance of the body, and in regulating lipoid metabolism, the adrenal cortex seems to have some control of oxygen interchange. The administration of oral extracts of the cortex, although slower than parenteral in action, has resulted favorably in the treatment of asthenic individuals, especially those of schizoid tendencies. Cortin seems to be useful in stopping the pernicious vomiting of pregnancy.

Parathyroid — Out of 22 hyper-parathyroid patients observed during 10 years, 9 did not have skeletal disease. In addition to these cases, there were five, all girls who had had a very precocious puberty, who had a cystic skeletal disease unlike that seen in hyper-parathyroid. The cysts were localized in one bone, and not diffuse as in parathyroid disease. Areas of pigmentation on the skin followed the cysts below.

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Radiological Management of Cancer of the Breast*

By RICHARD DRESSER, M.D.
Boston

Realizing that the radiological management of cancer of breast is still not standardized, the methods in use in several of the cancer clinics of Massachusetts are presented. Treatment of early localized cancer of breast is primarily surgical. Without gland involvement or distant metastases radical mastectomy should give five-year cure in 50 to 70 per cent. Radiology is unable to improve or equal this.

Cancer of breast may be divided into four groups: (1) primary operable cases; (2) cases inoperable because of the extent of the disease locally, the presence of distant metastases, or the unfavorable general condition of the patient; (3) cases presenting local recurrence or metastases following surgical removal of the breast; (4) cancer of the breast in young women.

Group 1. Primary operable cases. Clinical criteria of operability are a mass movable on chest wall, skin not extensively involved, absence of inflammation in presence of erosion of skin. Moderate involvement of lower axillary glands does not contraindicate surgery but reduces chance of cure. Involvement of super clavicular glands contraindicates surgery. Visceral or bony metastases always contraindicates surgery. Differentiation of benign and malignant tumors of the breast by means of soft tissue radiography is of little value.

The following tables show the results in a series of 500 cases of cancer of the breast examined roentgenologically with a view to determining the incidence of pulmonary and osseous metastases.

TABLE I
Carcinoma of Breast

Total Cases Examined	500	100.0%
No Metastases	293	58.6%
Metastases to Bones or Lungs	207	41.4%
Metastases to Lungs Only	73	14.6%
Metastases to Bones Only	86	17.2%
Metastases to both Bones and Lungs	48	9.6%

TABLE 2
Carcinoma of Breast

Total cases showing Bone Metastases	134	100%
Pelvis	86	64%
Spine	84	62%
Lumbar Spine	68	50%
Dorsal Spine	54	40%
Cervical Spine	23	17%
Skull	60	44%
Extremities	57	42%
Shoulder Girdles	42	31%
Ribs and Sternum	42	31%

Metastases in bones occurs more frequently than in the lungs. To reduce expense the long bones may be omitted in routine X-ray examination of the skeleton. Pre-operative radiation has several disadvantages; viz., lack of radiosensitivity of many cancers of breast, production of severe skin erythema because of necessarily large dosage, late radio dermatitis, possibility of pulmonary fibrosis from lung damage. Post-operative radiaton should not be given routinely but limited to certain selected cases where there has been a simple amputation of the breast without axillary dissection, where there is gross or microscopic involvement of axillary nodes, and where the patient has not passed the menopause. Radium treatment of operable cancer of breast should not be recommended as a substitute for surgery in favorable cases.

Group 2 — Inoperable cases. This group includes about 60 per cent. of clinic cases. If the disease has not progressed beyond the axillary and supraclavicular glands and the patient is in good general condition, intensive radiation to these areas is indicated. If distant matastases have developed the case is hopeless, intensive radiation is not justified but high voltage roentgen rays may be substituted. Occasionally the local lesion is treated by the implantation of radium needles and sometimes by a combination of radium and roentgen rays. The direct effect

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of radiation on distant metastases is usually disappointing but may have a marked analgesic effect, particularly where the spine is involved.

Group 3. Post-operative recurrences. Local recurrences following radical surgery do well with 1500 to 1800 (r) dosages over a seven to ten day period. Many of the larger, more indurated areas of local recurrences with chest wall involvement may be controlled in the same manner. Post-operative axillary and supraclavicular recurrences are treated as described in Group 2, extension of treatment to remaining breast as in inoperable cases.

Group 4. Cancer of the breast in young women. Cancer of breast is generally more malignant in this group and gives a larger mortality. Castration by high voltage roentgen irradiation is the best method of treatment. In the pre-menopause group 30 per cent. showed regression of the bone metastases and were relieved of symptoms for from several months to three years. In the post-menopause group no bone regeneration following ovarian radiation could be demonstrated. In the advanced cases of cancer of the breast in young women, if operable, a radical mastectomy is done followed in ten days by intensive roentgen treatment to operative site. The pelvis is then radiated. The results in this latter group have been encouraging. The danger of future pregnancy is eliminated and this alone justifies the procedure.

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Cancer in Connecticut

The State Department of Health has recently added to its staff Herbert F. Hirche, C. P. H., who is engaged in setting up a cancer program for the State of Connecticut. A similar program as far as feasible, will be instituted for Hartford under Mr. Hirsche's direction. The August Bulletin of the Hartford Board of Health informs us that in 1935 Mr. Hirsche made a detailed study of cancer in New Haven in which many interesting and important facts were discovered. In his report he states that "because cancer is not a reportable disease, no index of its prevalence has been accurately determined. It has been estimated, however, that for every death from cancer there exists at least three living cases of the disease. Assuming this to be so, the incidence would appear to be around 450,000 for the Registration Area, a figure which probably falls short of the facts. Dublin draws attention to the seriousness of the problem by estimating that of 100 boys 10 years of age, 8 will eventually die of cancer, and of 100 girls 10 years of age, more than 11 will succumb to the disease."

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The National Medical Council on Birth Control was organized in June, 1936, for the following purposes: To control and supervise all medical policies of the American Birth Control League and to initiate, encourage and execute appropriate scientific research in the medical aspects of birth control.

New England Surgical Society

At the annual meeting of the New England Surgical Society held in Bridgeport, September 25-26, 1936, the following officers were elected:

President, L. C. Kingman, M.D., Providence, Rhode Island.

Vice-President, Walter Phippen, M.D., Salem, Mass.

Secretary, J. M. Birnie, M.D., Springfield, Mass.

Treasurer, J. R. Miller, M.D., Hartford, Conn.

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A bill has been introduced into the New York State legislature forbidding physicians to advertise for patronage. It forbids the cooperation with unlicensed practitioners. The act closes every channel of publicity to the physician except the unpaid person to person endorsement on which the reputation of the reputable practitioner of medicine is built. Commenting, the New York State Journal of Medicine says: "There is nothing in the Feld bill that would restrict the perogatives of reputable physicians, deprive the public of any essential service or deplete the legitimate revenues of honest advertising media. If anything, it would rid the responsible practitioner of unscrupulous competition and protect the ignorant and gullible layman against exploitation."

—*Journal of Michigan State Medical Society.*

Association of Connecticut Tumor Clinics

By P. J. McLELLAN, M.D.

The second meeting of the Association of Connecticut Tumor Clinics was held September 23, 1936, in New Haven. Eighteen of the tumor clinics in the state were represented by two or more delegates.

The Association of Connecticut Tumor Clinics was formed in 1935 by the State Tumor Committee with the following setup as established at that time:—

"The name of the organization shall be the Association of Connecticut Tumor Clinics.

The officers shall consist of a president who shall be the Chairman of the State Tumor Committee, and a secretary who shall be the Secretary of the State Tumor Committee.

The purpose of the organization shall be to coordinate the activities of the various clinics. To accomplish this three committees shall be appointed yearly:—(1) Pathology Committee. (2) Therapy Committee. (3) Records Committee. The chairman of each committee shall have the power to designate the members of his own committee, subject to the approval of the State Tumor Committee. The number of members on each committee shall be left to the judgment of the chairman. Any recommendations made by these various committees shall be submitted to the State Tumor Committee for approval and then forwarded to each tumor clinic for their adoption or rejection."

Dr. Joseph O. Collins, Chairman of the Pathology Committee, reported progress in developing a uniform terminology for use in the various state tumor clinics. Periodic meetings of all the pathologists in the state have been held during the past year at the Brady Laboratory in New Haven and the group is looking forward this year to a continuance of these meetings which were so instructive during the past year.

Dr. Ashley W. Oughterson, Chairman of the Therapy Committee, reported that his committee was exerting its efforts towards the defining of minimum standards of therapeutic equipment for accepted tumor clinics in Connecticut and a survey of such equipment had been made. It was hoped that some standards for the treatment of certain types of carcinoma might be attained in the future.

Dr. Philip G. McLellan, Chairman of the Records Committee, reported that standard records had been devised and distributed to all the clinics of the state, without cost to the various clinics, due to cooperation by the State Department of Health.

Dr. Charles L. Larkin, President of the Association, announced the appointment of the following committee chairmen:— Pathology, Dr. Louis P. Hastings; Therapy, Dr. Ashley W. Oughterson; Records, Dr. Philip G. McLellan.

The Association voted to hold four joint meetings of the Connecticut Tumor Clinics during the coming year, these meetings to be held in New Haven, Bridgeport, Hartford, and Waterbury. At these meetings a symposium will be held on some pertinent cancer subject. The data obtained at these meetings will be published and distributed to the physicians of the state by the Publicity Committee of the State Tumor Committee.

It was also voted that Dr. M. H. Griswold and Mr. Herbert Hirsche of the State Department of Health be appointed field directors of the Association, to visit the various tumor clinics, report to the State Tumor Committee their suggestions for bettering the work of the Association, and to collect data for publication and distribution to the physicians of the state.

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MANUSCRIPTS.— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

ILLUSTRATIONS.— Four halftones or zinc etchings will be furnished by THE JOURNAL when satisfactory photographs or drawings are supplied by the author. Each illustration, table, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested. The plates are sent to the author after the article has been published.

NEWS.— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

ADVERTISEMENTS.— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

SUBSCRIPTIONS.— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

REPRINTS.— Reprints of papers and obituaries may be obtained from the Editor at cost.

• Editorials •

THE AMERICAN BOARD OF INTERNAL MEDICINE

With the rapid development of the specialties and the importance assumed by the special fields the American Medical Association has been forced to take action. The House of Delegates has authorized the Council on Medical Education and Hospitals to approve special boards for special examinations in special fields of the practice of medicine. The American Medical Directory has adopted the policy of inserting in the data of physicians listed therein, the possession of certificates issued by these boards. The action thus taken does not bear the unanimous approval of the profession in this country, but with a glance well into the future it would seem to most of us in this section to be a wise step in the right direction. From the far southwest comes the cry that the right to practice medicine should be a blanket right, covering the whole field, and that specialization should be by common consent and concensus of opinion of referring physicians. Our friends in Texas know of people who go directly to specialists as they do in Connecticut and they also recognize the complicated status of the specialty field today, whereby referring physicians are unable to keep up with it.

There has been an insistent demand that the practice of specialties in medicine be restricted to those physicians who are able to demonstrate special training and capabilities in the branch of medicine indicated as their specialty. Already six special boards are in existence and now a seventh is added, the American Board of Internal Medicine. The restriction thus set up by these boards was intended primarily to safeguard the public, but the movement demanding certification has originated in and been developed by those physicians who would themselves be subject to such examination and certification.

The American Board of Internal Medicine incorporated February 28, 1936 and completed its organization June 15, 1936 by selecting the following officers: Walter L. Bierring, M.D., Des Moines, Iowa, Chairman; Jonathan C. Meakins,

M.D., Montreal, Canada, Vice-Chairman; O. H. Perry Pepper, M.D., Philadelphia, Pa., Secretary-Treasurer. The Board comprises in addition to these officers David P. Barr, M.D., St. Louis, Mo.; Reginald Fitz, M.D., Boston, Mass.; Ernest E. Irons, M.D., Chicago, Ill.; William S. Middleton, M.D., Madison, Wis.; John H. Musser, M.D., New Orleans, La.; and G. Gill Richards, M.D., Salt Lake City, Utah. Each member shall serve three years and no member may serve more than two consecutive terms.

The organization of the Board is the result of effective effort on the part of the American College of Physicians in conjunction with the Section on Practice of Medicine of the American Medical Association and these two organizations are represented in the membership of the Board on a five to four ratio respectively.

The American Board of Internal Medicine had previously received the official approval of the two bodies fostering its organization, as well as that of the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association.

The purpose of the Board will be the certification of specialists in the field of internal medicine, and the establishment of qualifications with the required examination procedure for such certification.

While the Board is at present chiefly concerned with the qualification and procedure for certification in the general field of internal medicine, it is intended to inaugurate immediately after July 1, 1937 similar qualification and procedure for additional certification in certain of the more restricted and specialized branches of internal medicine, as gastroenterology, cardiology, metabolic diseases, tuberculosis, allergic diseases, etc. Such special certification will be considered only for candidates who have passed at least the written examination required for certification in general internal medicine. The operation of such a plan will require the active participation and cooperation of recognized representatives from each of such special fields of medicine.

Each applicant for admission to the examination in internal medicine will be required to meet the following standards:

GENERAL QUALIFICATIONS

1. Satisfactory moral and ethical standing in the profession.

2. Membership in the American Medical Association or, by courtesy, membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association. Except as here provided, membership in other societies will not be required.

PROFESSIONAL STANDING

1. Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the American Medical Association.

2. Completion of an interneship of not less than one year in a hospital approved by the same council.

3. In the case of an applicant whose training has been received outside of the United States and Canada, his credentials must be satisfactory to the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association.

SPECIAL TRAINING

1. Five years must elapse after completion of a year's interneship in a hospital approved for interne training before the candidate is eligible for examination.

2. Three years of this period must be devoted to special training in internal medicine. This requirement should include a period of at least several months of graduate work under proper supervision in anatomy, physiology, biochemistry, pathology, bacteriology, or pharmacology, particularly as related to the practice of internal medicine.

This work may be carried on in any domestic or foreign medical school or laboratory recognized by the Council on Medical Education and Hospitals of the American Medical Association as offering appropriate facilities for this type of postgraduate experience; or it may include a period of at least several months of graduate work under proper supervision in internal medicine or in its restricted and specialized branches in any domestic or foreign hospital, clinic, or dispensary, recognized by the above Council as offering appropriate facilities for this type of postgraduate experience.

3. A period of not less than two years of special practice in the field of internal medicine or in its more restricted and specialized branches.

The American Board of Internal Medicine does not propose to establish fixed rules for the preliminary training of candidates for certification in this field. Broad general principles for training, however, may be outlined, although such suggestions as are made must, of necessity, be subject to constant changes reflecting the dynamic nature of the specialty.

A sound knowledge of physiology, biochemistry, pharmacology, anatomy, bacteriology, and pathology, in so far as they apply to diease is regarded as essential for continued progress of the individual who practices internal medicine. The mere factual knowledge of medicine and its basic sciences is not sufficient. The candidate must have had training in their use in furthering his understanding of clinical medicine. This implies practical experience under the guidance of older men who bring to their clinical

problems ripe knowledge and critical judgment. Preparation to meet this requirement adequately may be even more difficult to obtain than the so-called scientific training. It may, however, be acquired in the following ways:

(a) By work in a well-organized hospital outdoor clinic conducted by competent physicians.

(b) By a prolonged period of resident hospital appointments likewise directed by skilled physicians.

(c) By a period of training in intimate association with a well-trained and critical physician who has taken the trouble to teach and guide his assistant rather than to require him only to carry out the minor drudgery of a busy practice.

4. The Board does not consider it to the best interests of internal medicine in this country that rigid rules as to where or how the training outlined above is to be obtained. Medical teaching and knowledge are international. The opportunities of all prospective candidates are not the same. Some may have the opportunity of widening their knowledge by a period of study abroad. Others, at the other extreme, may be restricted to a comparatively narrow geographic area and their detailed training must be obtained in short periods scattered over a long time. Although it is laid down that at least five years must elapse between the termination of the first interne year and the time when the candidate is eligible to take the examination, a longer period is advisable. The Board wishes to emphasize that the time and training are but means to the end of acquiring a broadness and depth of knowledge of internal medicine which the candidate must demonstrate to the Board in order to justify it in certifying that he is competent to practice internal medicine as a specialty. The responsibility of acquiring the knowledge as best he may rests with the candidate, while the responsibility of maintaining the standard of knowledge required for certification devolves on the Board.

METHOD OF EXAMINATION

The examination required of candidates for certification as specialists in Internal Medicine will comprise, Part I (written) and Part II (practical or clinical).

Part I. The written examination is to be held simultaneously in different sections of the United States and Canada and will include:

(a) Questions in applied physiology, physiological chemistry, pathology, pharmacology, and the cultural aspects of medicine.

(b) Questions in general internal medicine.

The first written examination will be held in December 1936, and candidates successful in this written test will be eligible for the first practical or clinical examination which will be conducted by members of the Board near the time for the annual session of the American College of Physicians at St. Louis in April 1937. The second practical examination will be held at Philadelphia near the time of the annual session of the American Medical Association in Atlantic City in June 1937.

The fee for examination is forty dollars which must accompany the application and an additional fee of ten dollars is required when the certificate is issued.

Application blanks and further information can be obtained by addressing the office of the chairman, Walter L. Bierring, M.M., 406 Sixth Avenue, Des Moines, Iowa.

THE RETINA IN TOXEMIA OF PREGNANCY

Considerable attention has been focused on vascular changes in the retina since the work of Mylius of Hamburg, Germany, in 1928. Spasmodic constrictions of the retinal arteries were reported as early as 1874 when Raynaud called attention to his findings. Leber, writing in Graefe-Saemischs Handbuch, reported finding cases of frequent, fleeting and recurrent attacks of blindness, bilateral as well as unilateral, which gave normal ophthalmological findings in the free intervals. Since the time of Leber we are indebted to Muller for his method of capillary microscopy begun in Tubingen and resulting in stimulation of the study of the functional changes of arteries, arterioles and pre-capillaries.

Spasmodic contractions of the vessels were believed by Mylius to be functional and recent investigations seem to show that these functional changes are dependent on nervous influences. The same writer describes the eye findings in a pre-eclamptic patient: constantly changing and quickly disappearing spastic constrictions of the branches of the central retinal artery, varying in degree and location; later on, papilledema and small retinal hemorrhages with reduction of visual fields; gradual and complete recovery with normal vision following delivery.

Ischemia of the entire retina may occur when the entire arterial tree becomes spastic, preventing the delivery of sufficient blood to the retina. These vessel changes may persist for hours or days, may come on suddenly and disappear just as suddenly, attacking one or both eyes. In Haselhorst's and Mylius' cases the onset of the eclamptic convulsions coincided in time with the appearance of the maximal constriction of the retinal arteries. In pregnant women the majority of those with definite residual sclerosis of the retinal vessels have persistent and usually progressive diffuse vascular disease. The mild cases are recognized as functional by the constant change in form, degree, distribution and duration of the spasm. The spasms exhibit a tendency to recur at a certain point and travel rapidly along the vessel as a wave, changing the outline of the vessel, giving it either the so-called spindle pearl necklace, or rosary-like appearance. All toxemias do not show these changes.

Recently, Hallum of Atlanta, Georgia, reportin the Journal of the American Medical Associ-

ation for May 9, 1936, gives generalized narrowing and localized spastic constriction of the retinal arterioles as the earliest changes in the fundi of toxemias of pregnancy. Retinal edema, hemorrhages and exudates appear later with the increase in severity of the toxemia. Hallum bases his decision for interruption of pregnancy on the uncontrollable progress of these eye lesions by conservative measures. Termination should always be carried out before the onset of retinitis. Retinitis occurring before the twenty-eighth week of pregnancy, we are told, permits but a 25 per cent. chance of a living baby, even though the pregnancy is carried to the period of viability. The damage to the vascular system in such cases is almost 100 per cent. If toxemia occurs before the twenty-eighth week without retinitis, the prognosis is slightly better. A previous hypertensive toxemia is a contra indication to further pregnancies.

With the present imperfect knowledge of the origin and of the complete pathological picture in toxemia of pregnancy it is encouraging to know that careful ophthalmological study will aid us in detecting the early case, and in differentiating the functional from the organic case. The cases of real eclampsia accompanied by convulsions as well as the other cardinal symptoms of advanced disease, are becoming less and less frequent where careful obstetrical care is administered. Therefore, the increasing use of the ophthalmoscope becomes a valuable aid in preventing the development of vascular renal injury during pregnancy.

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DR. HENRY FARNUM STOLL

In the prime of life, his days crowded with professional interests, with his practice, hospital and medical society receiving generously of his time, to all this Dr. Henry Farnum Stoll suddenly bade farewell in the early morning of September 28, 1936. He was an ardent admirer of the arts — music, painting, the theatre,— and withal he possessed a keen zest for and enjoyment of nature, whatever the season.

Born in Port Jervis, New York, in 1878, Dr. Stoll came to Hartford from Cornell University and from the College of Physicians and Surgeons in New York to serve an interneship in the Hartford Hospital. Hartford became his home. Handicapped early in practice by a physical impairment which he was able to overcome he learned to carry on a large practice without early succumbing to its demands. He was a pioneer in the study and treatment of syphilis. Many of his fellow practitioners will remember his spirit of investigation applied to the Swift-Ellis method of therapy in lues. His reputation was not bounded by local geographical limits.



Dr. Henry Farnum Stoll

During the World War Captain Stoll distinguished himself as a member of the faculty of the Walter Reed Hospital in Washington. A promotion to major and then to lieutenant colonel followed. On his return home he became intensely interested in the battle against tuberculosis. His counsel was sought by numbers suffering from this dread disease. Many a patient lives today to testify to his thorough painstaking care of them through the uncertainties of their illness. With the advent of artificial penumothorax Dr. Stoll became an ardent investigator of this method of therapy and in the

last year of his life had extended its use to the treatment of lobar pneumonia.

Dr. Stoll was an attending physician at the Hartford Hospital, consulting physician to several suburban hospitals, past president of the Hartford County Medical Association, and vice president of the Hartford Medical Society. We honor his memory for his pioneering spirit of research, his perseverance in spite of physical handicaps, and his untiring zeal for accomplishment.

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MATERNAL AND CHILD HYGIENE PROGRAM UNDER SOCIAL SECURITY ACT

It is apparent to those who read that the voice of organized medicine has been heard in our United States and appreciated in the executive branch of our government. Recently at the dedication of the Jersey City Medical Center President Roosevelt expressed appreciation to the medical profession of our country tor their work during the depression. He assured the profession that the federal administration contemplated no action detrimental to their interests. The four provisions in the Social Security Act all received the support of outstanding physicians during the Congressional hearings, this fact in itself assuring us that the health plans will be carried out in a manner "compatible with our traditional social and political institutions."

All states and territories are now cooperating with public health service. All states except one are cooperating in maternal and child health service, all states but ten in service to crippled children, and all states but nine in child welfare. The medical profession is looked upon for continued support and cooperation. The chief executive in return assures us that attempts to put medicine into politics "have always failed and always will fail."

The Committee on Public Health of the Connecticut State Medical Society, through its Chairman Dr. Joseph I. Linde, herewith submits a report of progress under the provisions of the Social Security Act. This committee has approved the courses which are to be given in conjunction with the State Department of Health.

The following practical course in Maternal Health will first be given at the Windham Community Memorial Hospital beginning October 6, 1936, and the Day-Kimball Hospital, Putnam, beginning October 7. The Outline of the Course in Obstetrics follows:

Windham Community Memorial Hospital: Beginning October 6, to be held on successive Tuesday evenings at 8:30.

1. Ante partum care.
2. Toxemias of pregnancy.
3. Pathology of pregnancy other than toxemias: bleeding, placenta praevia, premature separation, ca of cervix, etc.
4. Diseases associated with pregnancy: diabetes, cardiac, acute infection, thyroid, etc.
5. Induction of labor.
6. Use of x-ray in obstetrics.
7. Analgesia, anaesthesia, and drugs during labor.
8. Forceps on the manikin.
9. Version and breech extraction on manikin.
10. Caesarian section.
11. Postpartum care.
12. Open forum and review.

The following obstetricians will act as instructors:

Dr. James R. Miller, Hartford.
Dr. Emerson L. Stone, New Haven.
Dr. A. Nowell Creadick, New Haven.
Dr. Herbert A. Thoms, New Haven.
Dr. Luther K. Musselman, New Haven.
Dr. Joseph H. Howard, Bridgeport.

Most of the lectures will be accompanied by motion films or illustrative slides.

The same lectures will be given at the Day-Kimball Hospital in Putnam on successive Wednesday evenings at 8:30, beginning October 7.

The order of lectures may be different from that in Willimantic, but the same topics will be covered during the course.

The Committee on Public Health has also approved a course in Pediatrics which will be given after the Obstetrics course is completed. This course is in charge of a committee consisting of Dr. Grover F. Powers, Professor of Pediatrics, Yale University School of Medicine, Chairman; Dr. Harold Root, Waterbury; and Dr. Oliver Stringfield of Stamford. The instructors will be selected by this Committee from the Association, and the course is part of the program which is

being conducted by the State Department of Health under the Social Security Grant. The outline of the Course in Pediatrics follows:

1. Mental and motor development of infant and child.

2. Physical appraisal of child stressing: (a) normal child, (b) defects.

Content of a complete physical examination.

Importance of history.

3. Neo-natal care (preferably given in close conjunction with prenatal course).

Common pathological conditions during this period.

Danger signals.

Discussion of high mortality during this period.

4. Prematurity — importance in the neo-natal mortality.

Causes.

Prevention.

Treatment.

5. Immunization procedures: Diphtheria, Smallpox, scarlet fever, tuberculin testing, etc.

6. Nutrition: Infant feeding.
Principles.

7. Proprietary foods.
Feeding of older children.
Accessory food factors.

8. Oral hygiene: By State Oral Hygiene Director.

Case demonstrations and consultations to be given whenever possible.

At the recent meeting of the Committee on Public Health certain standards for conducting the local child health conferences were accepted with amendments. These conferences are in most instances being conducted by local physicians with the assistance of the staff of the Bureau of Child Hygiene of the State Department of Health.

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The Connecticut Medical Examing Board

C. J. BARTLETT, M.D., President

It is mandatory that the Connecticut Medical Examining Board submit a report of its activities during the year to the State Medical Society at its annual meeting, so this message must not be construed as its report but considered rather in the nature of a greeting to the members of the society through its new journal, and an outline of the routine work of the Board.

The examinations are held three times a year, in March, July and November. The written examinations take place the second week of these months and the examination on the basis of credentials occurs two weeks later. An examination by the State Board of Healing Arts is prerequisite to the written examinations and an exhaustive inquiry as to the fitness of the applicant is conducted by the Board prior to his appearance for examination. It is in this connection that the Board feels that the members of the society can be of great help and believes it the duty of the members to submit any information, good or bad, which might be of help in the proper appraisal of the fitness of an applicant.

The examination on the basis of credentials is given National Board Diplomates and applicants who have been in practice in another state for three years, or longer. These credential applicants who have not been in practice five years must obtain a certificate from the State Board of Healing Arts but need not write its examination. An applicant who has been out more than five years is not required to obtain this certificate. The chief aim and purpose of the Board in relation to its credential applicants is to try and evaluate adequately the qualifications of the applicants in order that Connecticut will obtain only the better grade of physicians by transfer from other states.

A review of the records would seem to indicate that the economic factor has its place in medicine as well as in trade. The number of physicians appearing for examination has steadily increased since 1931. Noticeable also is the increase in numbers of physicians wishing to transfer from the larger cities in other states to the smaller cities in Connecticut.

The examinations, both oral and written, are rigid because it is the feeling of the members of the Board that the standards of medicine in Connecticut must be kept up.

I speak for the other members of the Board as well as myself in congratulating the editor and the society in the success of the first issue of the state journal.

From the Secretary's Office

CREIGHTON BARKER, M.D.
258 Church Street New Haven

I. The State Society automobile emblems are now available and being distributed. The emblem is the official A.M.A. emblem with the inscription CONNECTICUT STATE MEDICAL SOCIETY around the margin. Now that this State Emblem has been adopted the regular A.M.A. emblems will not be sold from Chicago to members of The Connecticut State Medical Society. This office has been in communication with the chiefs of police in all of the major towns and cities in the State, and some replies assuring cooperation with our members have been received. The emblems are $2.00 each, and will be sent postpaid upon receipt of a cheque for that amount.

II. The Council has voted to have a commercial exhibit in connection with the Annual Meeting of the Society in May 1937 in Bridgeport. This popular addition to the program of the 1935 Clinical Congress had to be omitted this year. Because of the interest shown in it, it will be added to the program for the State Meeting. It is hoped that it may become a regular part of the State Meeting each year.

III. This office handled all of the publicity for the recent Clinical Congress under the direction of Dr. Maurice J. Strauss, the Chairman of the Committee on Publicity and Registration. It involved the handling of more than 7,000 pieces of mail. The registration at the Congress this year was larger than ever before.

IV. The Secretaries of all of the County Associations met in New Haven for a luncheon conference during the Clinical Congress, and many subjects of importance in connection with the administration of the County Associations were discussed. The conference was especially interested in working out a standard procedure for the transfer of members from one County Association to another upon a change of residence.

V. The response to the Questionnaires sent out by the Committee on Public Policy and Legislation in regard to automobile accidents has been very informative. The hospitals of the State cooperated fully. A large amount of material was collected which is being analyzed by Doctor Comfort, the Legislative Secretary.

VI. Rapid progress is being made on the new Directory of physicians of the State that is to be published in co-operation with the Medical Society of the State of New York, and the New Jersey State Medical Society. If any members have not returned their blue directory cards giving the biographical data required for the Directory that were sent out from the office of the New York State Society, it will be appreciated if they are returned without further delay; otherwise the information contained in the Directory may not be just as you would like to have it appear.

VII. The Council has recently approved the Standing Orders and Policies for Public Health Nurses prepared by the State Department of Health in cooperation with the State Society's Committee on Public Health. These regulations will be available for distribution in the near future.

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The Hartford Board of Health Commissioners gave a preview at the Travelers Insurance Company auditorium, Hartford, on October 13, of the film on syphilis entitled "For All Our Sakes". Representative citizens were invited to attend and express opinions as to the educational value of the film.

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Malaria, thought to be largely extinct in Connecticut, has assumed renewed importance. Three cases of the tertian type have recently been discovered in the Hartford Hospital. This reminds us that the disease may be more prevalent than has been considered and other cases may have been overlooked.

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The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Non-official Remedies:

Jensen-Salsvery Laboratories, Inc. — Botulinus Antitoxin (Human) (containing 2500 units each of Type A and Type B Antitoxin).

Sharpe & Dohm, Inc. — Grass Mixture Pollen Extract (Timothy, June, Orchard, Sweet Vernal, and Red Top Grass Pollens), and Grass Mixture Pollen Extracts (Pollens of Southwestern Grasses). Anti-pneumococcic Serum Types I and II combined.

Non-proprietary Articles. — Tetrachlorethylene.

State Department of Health

STANLEY M. OSBORN, M.D., Commissioner

The Pneumonia Problem in Connecticut

By MILLARD KNOWLTON, M.D.
Director Bureau of Preventable Diseases

The marked decline in the tuberculosis death rate during the past half century has left pneumonia as the major cause of death among the reportable diseases in Connecticut. Last year 672 deaths were charged to lobar pneumonia as compared with 657 deaths charged to pulmonary tuberculosis. Broncho-pneumonia was given as the cause of 447 deaths, and there were 57 deaths from other forms of tuberculosis. The 1119 deaths due to pneumonia amounted to nearly half the total of 2255 deaths from all reportable diseases in Connecticut.

It is estimated that about 96 per cent. of lobar pneumonia cases are due to the pneumococcus and 4 per cent. to other organisms. There is no method of immunizing against pneumococcus pneumonia comparable to vaccination against smallpox or toxoid for protection against diphtheria. Preventive measures that can be carried out administratively have not been developed and proven efficacious. Thus, the attack on pneumonia consists in the application of more effective methods of treatment.

The serum treatment of pneumococcus pneumonia is complicated by the fact that serum must be type-specific in order to be effective, and 32 types of pneumococcus have been described, while occasionally a pneumococcus is found that does not belong to a recognized type. While the proportion of cases due to the different types of pneumococcus varies with time and place, fortunately a large proportion of cases are due to types I and II penumococcus for which type-specific sera are available. Different observers in different places ascribe from 35 to 55 per cent. of lobar pneumonia cases to types I and II pneumococcus, while rather meager figures suggest that perhaps 5 per cent. of broncho-pneumonia cases may be due to the same types of pneumococcus.

More recently type-specific antipneumococcic sera have been developed for types V, VII, and VIII pneumonia. The preliminary results of experimental work with these sera would appear to justify the hope that their effectiveness may be about equal to that for types I and II. In other words it is hoped that more extended experience will confirm the results so far obtained and show that a life may be saved out of every six or seven lobar pneumonia cases promptly given type-specific serum for types V, VII and VIII pneumococcus. As different authorities report these three types of pneumococcus as responsible for from 18 to 20 per cent. of lobar pneumonia cases, effective sera against them will add materially to our weapons for combating pneumonia when funds are available to furnish such sera.

For some time the state department of health has been distributing bivalent antipneumococcic serum for types I and II pneumococcus pneumonia in accordance with Section 2392 of the General Statutes which authorizes the department to procure biological products "for the free use of people of the state upon whom the purchase thereof would impose a financial hardship, and to distribute the same to town, city or borough health officers who shall furnish the same to such persons upon recommendation of attending physicians". From the wording of this law it appears that the state department of health is authorized to distribute biological products only to local health officers. Accordingly, arrangements for making such products readily available to physicians in time of emergency are left in the hands of local health officers. The state department of health plans to continue the distribution of bivalent antipneumococcic serum for types I and II pneumonia, but lack of funds will prevent beginning the distribution of serum for types V, VII and VIII at the present time.

The importance of giving serum early in cases of lobar pneumonia is illustrated by a tabulation of case records returned to the state department of health. According to these records tabulated by Dr. Benjamin G. Horning the fatality rate in cases given type-specific serum for types I and II pneumonia during the first day of illness was 9 per cent., during the second day 12 per cent., during the third and fourth days 26 per cent., and after the fourth day 55 per cent. According to these figures type-specific antipneumococcic serum is nearly three times as effective if given during the first day of illness as if given during the third and fourth days. The fact that 55 per cent. of those given serum after the fourth day died may be taken to indicate that serum has no value after the fourth day. In fact it may do harm if given to persons who are sensitive to serum proteins.

Because the early administration of serum in cases of pneumonia is necessary for effectiveness it is highly important to determine very quickly the type of pneumococcus responsible for a case. This is made possible by the Neufeld test. During the pneumonia season some physicians carry equipment for making this test at the bedside. A number of laboratories are readily available where the test can be made for those who prefer this service. The Connecticut health bulletin for April, 1936 carries a list of 50 laboratories approved for examinations of a public health nature. More than half of these laboratories, especially those in city health departments and large general hospitals, are equipped to do the Neufeld test. Also, the laboratory of the state department of health in Hartford is at the service of any physician in the state.

Owing to the necessity for giving antipneumoccic serum very promptly in order that it may be effective a case of lobar pneumonia may be considered as much of an emergency as a fracture or an acute appendix. A specimen of sputum can be sent to a laboratory by special messenger for typing and serum given at once if it proves to be of a suitable type. In order that such procedure may be carried out immediately it is desirable to have advance arrangements made with a laboratory near at hand for emergency work when needed.

In a few cases the Neufeld method may not show clear-cut results until the pneumococcus is passed through a mouse. Such procedure involves a delay of a day or so in the report. This will seldom occur when a fresh specimen of sputum coughed up from the lungs is submitted for examination. Unless the first specimen collected is known to be of satisfactory quality, another specimen should be collected without waiting for a report on the first. When the first specimen is reported negative, another specimen should be submitted at once as a precautionary measure.

After the way is cleared by rapid typing of the pneumococcus for specific serum administration the next question is the method of administration to avoid serum reactions. One of the best discussions of this subject available is that prepared for use in Massachusetts after consultation with a number of eminent specialists in serum therapy. A reprint of this circular was sent to all physicians in Connecticut in March 1936. It may be noted in passing that the hazard of serum reaction for a patient already very ill is one of the reasons why pneumonia patients should not be given other than type-specific serum.

Records are desired

Each package of antipneumococcic serum distributed by the state department of health in Connecticut contains a case record form for reporting the results of serum treatment. The information obtained by a compilation of these records serves as a basis for evaluating the serum and furnishing evidence of its usefulness to authorities responsible for allocating public funds for its purchase. Thus, in making out one of these case records, and being sure that it is completely filled out, a physician is rendering himself and his patients a service by contributing evidence justifying the expenditure of public funds for serum.

SUMMARY

1. Pneumonia is now the chief cause of death among reportable diseases in Connecticut causing nearly half of all deaths from this group of diseases.

2. There is no immunization procedure against pneumonia and so the only method of combating the disease is through treatment.

3. About 96 per cent. of lobar pneumonia cases are due to the pneumococcus of which 32 types are recognized, and type-specific sera are available for five of these types which are responsible for more than half of the cases.

4. The state deparment of health furnishes serum for only types I and II. Funds are not available to provide serum for types V, VII and VIII.

5. In order to be effective serum must be given early in the disease as shown by a fatality rate of 9 per cent. in cases given serum during the first day of illness as against 55 per cent. in cases given serum after the fourth day of illness.

6. The Neufeld method of typing permits rapid typing of the pneumococcus and thus, by treating a case of pneumonia as an emergency, a physician can learn very quickly whether or not serum will be of value.

7. The records of treated cases, when the forms are completely filled out and sent to the state department of health, will furnish evidence to justify a continuation of the distribution of antipneumococcic serum.

CONCLUSION

From data available it is believed that the use of type-specific serum during the first day of illness in all cases of types I and II pneumonia will save perhaps a hundred lives a year in Connecticut, and, if preliminary reports are confirmed by later experience, a similar use of type-specific serum on all cases of types V, VII and VIII pneumonia may be expected to save possibly fifty additional lives, making a total of approximately 150 lives that can be saved in Connecticut each year by utilizing all of our present knowledge concerning antipneumococcic serum.

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Report of the Increase in Charitable Relief at the Neuro-Psychiatric Institute of the Hartford Retreat

The following are excerpts quoted from the last annual report of Mr. Henry H. Conland, President of the Neuro-Psychiatric Institute of the Hartford Retreat, which was chartered by the Connecticut State Medical Society in 1822. Because the fiscal year and the calendar year do not coincide, the statistics cover a fifteen month period from January 1, 1935 to April 1, 1936, and show the number of persons who have been accepted and have received private room care at less than the established general hospital, private room rate during that period.

"Rates paid by patients for board and room, including services of psychiatrists, psychologists, instructors, therapists, entertainers, etc., between January 1, 1935 and April 1, 1936:

Patients paying zero	8.47%
Patients paying something but less than minimum of $40	17.94%
Patients paying more than a minimum rate but less than full rate	5.65%
TOTAL RELIEF REBATES	32.06%
Additional patients receiving Connecticut resident $5. weekly rebate	30.34%
Patients paying full minimum rate	21.07%
Patients paying full rate above minimum rate	16.53%
	100. %

"The foregoing does not take into consideration the additional free service in the form of special nursing medicines, X-rays, laboratory expenses, automobile trips, etc."

"Attention is called to the fact that in charity wards in general hospitals the weekly rate is from $17.50 to $21., which is the regular rate for charity patients. All care at this institution is, of necessity, private room care and here is on the same basis for non-paying and full paying patients."

The following figures cover the same fifteen months' period and show the number of persons who have received private room care at less than the established hospital private room rate all during that time:

"Number of people who paid	$00.00	to	$00.00–84
Number of people who paid	1.00	to	5.00– 5
Number of people who paid	6.00	to	10.00–18
Number of people who paid	11.00	to	15.00– 9
Number of people who paid	16.00	to	17.50– 2
Number of people who paid	17.51	to	20.00–21
Number of people who paid	21.00	to	25.00–41
Number of people who paid	26.00	to	30.00–13
Number of people who paid	31.00	to	35.00–33
Number of people who paid	36.00	to	40.00–30

"As a sidelight on the extent of the service furnished without charge, figures as of a single day,

presumably typical, have been prepared. On the day selected there were in residence at the Institute the following number of patients who were paying less than the minimum general hospital rate for private room care:

"00.00 per week—17
10.00 per week— 1
15.00 per week— 2
20.00 per week— 2
23.00 per week— 1
25.00 per week— 6
27.50 per week— 1
30.00 per week— 5
31.25 per week— 2
35.00 per week—15
37.50 per week— 3
40.00 per week—92 (88 of whom are Connecticut residents)

"These patients were receiving the following additional free services:

a. Services of private doctors.
b. Indicated services from 42 instructors and special therapists.
c. All physiotherapies and treatments.
d. Entertainments, etc.
e. Excessive amount of floor duty nursing over that ordinarily given in a general hospital."

"Further analysis of patients who were in residence on that same day disclosed that, in addition to those listed in the preceding table as receiving assistance toward payment for their care, the following received financial aid in connection with special nursing, medicines or other similar assistance needed for their recovery:

	Per Week
"11 received in the amount of	$00.00
4 received in the amount of	10.00
8 received in the amount of	15.00
1 received in the amount of	16.80
1 received in the amount of	21.70
1 received in the amount of	24.01
2 received in the amount of	30.00
1 received in the amount of	35.00
1 received in the amount of	43.40
1 received in the amount of	44.17
1 received in the amount of	50.00
1 received in the amount of	77.21
1 received in the amount of	00.00

"Of the group in residence on that day, we find that the following assistance was also given:

1. Entrance examination fee of $25.00 paid for by the hospital 11
2. X-ray and laboratory charges being paid for by the hospital 6
3. Automobiles rides and similar transportation charges being paid by the hospital 3

"A review of the rules adopted by our founders more than one hundred years ago, discloses that the charitable funds were primarily intended for those who would profit by a short stay, and not for custodial cases. Consistent with the original policy of the institution we have, therefore, not accepted on our charity funds "long stay custodial cases". The public has not always understood this point, but even a casual review of the situation would convince one that any other policy would result in the institution being filled with chronic custodial cases in a comparatively few months and thereafter we would be without capacity for service to any large number of applicants."

"For five years we have been working against heavy odds to meet the capital expenditures necessary for modernization. It would seem that the time cannot be long deferred when we must address ourselves to a concentrated effort to raise additional capital funds to continue the program of modernization and expansion to enable us to continue the dispensing of charity to patients on the scale which we still hope to maintain. Whether this should be done by a public campaign or by some other means is a matter for earnest consideration."

Realizing the importance of this report, the Board of Medical Visitors desire to bring this to the attention of the medical profession for their earnest consideration, and through them, to the public.

BOARD OF MEDICAL VISITORS
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Current Comments

ABORTION IN RUSSIA

The Journal of the Missouri State Medical Association informs us that Russia recently passed a law by which it joins the rest of the civilized world in its attitude toward abortions. Of this change the above mentioned Journal quotes Time as saying that in practical Joseph Stalin's quiet process of throwing overboard unworkable schemes for tampering with fundamentals, the Soviet Government decreed last week reversal of the Communist laws under which abortion has been free and easy throughout Russia. Also that as recently as 1930 the Dictator encouraged public celebration of "The Tenth Anniversary of the Legalization of Abortion in Russia". Time further states that under last week's law Russia rejoins the rest of the civilized world in prohibiting abortion, except where necessary to preserve the life of the prospective mother, or in extreme cases of venereal disease, and gives as the reason that Soviet gynecologists have convinced the Kremlin that sixteen years of easy abortion on a nation-wide scale have impaired the health of hundreds of thousands of Russian women, however much it achieved in realizing Communist ideals of equality of the sexes and a single Soviet standard of morality.

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A PLACE TO RECUPERATE

From the Editor of the Southern Sportsman, Vol. 1, No. 1, we learn the following information concerning the Lone Star State:

Texas occupies all of the continent of North America except a small part set aside for the United States, Canada, and Mexico. Texas owns the north half of the Rio Grande, one of the few rivers in the world that used to have one bank wet and the other dry. Texas is bounded on the north by 25 or 30 states, on the east by all of the oceans except the Pacific, on the south by the Gulf of Mexico and South America, and on the west by the Pacific Ocean and the rest of the world. Underneath Texas they have at this writing been down, out in Upton County, only 12,500 feet or so for oil, and up in the air Texas has in Guadalupe Peak, 9,500 feet above sea level the highest in the United States east of the Rockies.

Texas is so big that people in Brownsville call people in Dallas Yankees, and the citizens of El Paso speak of the residents of Texarkana as being "effete Easterners". It is farther from El Paso to Texarkana than it is from Chicago to New York, and Texarkana is closer to Milwaukee by airline than it is to El Paso. (Try this on your Rand McNally). The United States with Texas left out would look like a three-legged Boston Terrier.

The chief occupation of the people is to try to keep them from making all the money in the world, and at that the wealth of Texas increased 539 per cent. between 1900 and 1927. At one time Texas was so wild that not even the law of gravitation was obeyed, and the chief pursuit of the Texans was Indians and Mexicans, but now it is crop records and oil production. It is so healthful in Texas that out in Eastland a horned frog lived thirty years sealed in a cornerstone without food, air, or water.

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THE NURSE ANAESTHETIST

It is of interest to note that the New York State Medical Society at its last meeting adopted a resolution, the general purpose of which, according to the New York State Journal of Medicine, consisted of seeking legal means to curb the administration of anaesthetics by nurses. In New York, as elsewhere in this country, the use of nurse anaesthetists in hospitals has been on the rise since the World War. Now that the specialty of anaesthesia is becoming a remunerative one as well as of increasing importance to the practice of medicine it is but natural that the medical men should endeavor to regain possession.

The nurse anaesthetist has filled a need, and filled it well at a time when the civilian population was sorely in need of trained medical anaes-

thetists. They proved their worth in satisfying the ordinary requirements of the surgical team. Can we legislate into existence the specialty of anaesthesia when recognized courses in the specialty have not been established nation-wide and hence the required number of experts are not being trained? There are those who believe that the medical anaesthetist of the future will be on a full-time basis in our hospitals. To date but one hospital in Connecticut has made a move in this direction. The problem of proper training of physicians in anaesthesia has as yet been but touched upon.

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INDEX-CATALOGUE ARMY MEDICAL LIBRARY

After pursuing the fantasy of false economy for several years Congress has again appropriated funds for the publication of the Index-Catalogue of the Library of the Surgeon General's Office. The present volume is the first of the so-called Fourth Series and includes 7,233 author titles and 71, 168 titles of articles in medical periodicals. It is issued from the Government Printing Office at Washington by the Librarian and Staff of the Library of the Surgeon General's Office. The publication is recognized as one of the most magnificent contributions to scientific medicine that has ever been made. A companion piece to the Index Medicus of the American Medical Association physicians will find it invaluable in searching for articles on subjects of interest.

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FROZEN MOTHER'S MILK

In its issue of September 1, 1936, the New York State Journal of Medicine informs us that:

For the first time it is possible to freeze and keep mothers' milk for several months, transport it, and feed it to prematurely born or ill babies without the necessity of any subsequent action other than thawing and warming.

The process, invented by Washington Platt, a scientist in the Syracuse research laboratory of the Borden Company, and worked out in conjunction with Dr. Paul W. Emerson of Boston, was demonstrated on July 24 by the Mothers Milk Bureau of the Children's Welfare Federation of 325 East 38th Street, New York City.

Dr. Shirley W. Wynne, president of the Federation, presided at the informal ceremony with doctors and pediatricians as interested spectators. The process has been licensed to the Federation without charge by the Borden Company.

According to the staff of the Mothers Milk Bureau of the Federation the new process should make it possible for them to meet any demand that is made upon them. The bureau, which is largest of its kind in the country, furnished mothers' milk to 370 individual babies during 1935, in addition to the distribution of a considerable amount by hospitals to babies in wards.

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RABIES

In a recent issue of the Journal of the American Medical Association its Editor criticises Albert Payson Terhune, author and dog fancier, for his "subversive attitude" toward the prevention of rabies. The article under fire by Mr. Terhune, entitled "Beware of the Dog", appeared in the August 1936 Readers Digest. The average layman, after thoughtfully reading this article, must feel that after all rabies is quite rare, that in any event a little likewarm water, iodine, or, at the most, carbolic acid applied to the wound should prevent trouble or insure safe recovery.

The dangers of this attitude, either on the part of an individual or of the public, cannot be ignored in this day of scientific medicine. We invite the attention of Mr. Terhune and his readers to the report of the Ohio Health Department which shows that from January 1, 1934 to March 15, 1935, 416 out of 1,922 dogs' heads sent to their laboratory for examination showed infection with rabies. During the past ten years fifty-eight persons have died of rabies in Ohio, largely due to the Pasteur treatment having been given too late.

The Pasteur treatment has been in use for fifty years and its effectiveness cannot be denied. This protection against rabies, if given at the proper time, holds for us a 99% cure. It is extremely regrettable that a writer of such reputation as that of Mr. Terhune, or that a magazine of such wide circulation as the Readers Digest, should suggest that the possibilities of a dangerous disease may be regarded so lightly.

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A DENTIST ON WHEELS

The New York State Journal of Medicine in its issue of September 1, 1936, tells of a dentist in

England who has equipped an automobile trailer as a complete dental surgery, with a small waiting room and recovery cubicle and will tour villages in West Sussex. The article goes on to say that this is not a frantic scheme to track down the elusive patient, or to overtake terrified toothache victims who ring the dentist's bell and then run away. In fact, it is not for adults. The system has been devised so that school dentists can give proper treatment to children in the scattered villages of rural Sussex. Half the battle in the preservation of young people's teeth is won by arranging for regular examination; the touring dentist can make sure of those examinations and without expecting the children to pay periodical visits to some possibly distant town. The Editor's conclusion is that this type of dentistry is another example of the school health service and of work which has already yielded obvious and excellent results.

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COMMERCIAL MEDICAL DIRECTORY LISTINGS

The American Medical Association at its recent session in Kansas City passed a resolution sponsored by the Arkansas Medical Society relating to listings in commercial medical directories. One such directory lists approximately 5000 physicians with a $15.00 per year fee for such a listing. It is apparent that there is a huge profit in this racket as in the case of one directory where it is said to have netted as high as $60,000.

We quote the resolution as originally passed by the Arkansas Medical Society:

"*Whereas*, certain commercial interests are publishing medical directories, listing physicians by specialty and otherwise, as available for insurance and compensation work, and other professional services, and

"*Whereas*, Participation by listing in these lay publications merely serves for the profits of the promoters, and is furthermore technically indirect solicitation of patients, therefore be it

"RESOLVED, That the Arkansas Medical Society condemns these practices as unethical and forbids its members to continue listing their names in such directories, and be it further

"RESOLVED, That the Arkansas Medical Society requests the House of Delegates of the American Medical Association to take similar action."

LATIN-AMERICAN CONGRESS OF PHYSICAL THERAPY, X-RAY, RADIUM

The 2nd Congress Cruise, scheduled for August 1936, has been deferred to March 4, 1937, so that the Congress can be entertained the week of the inauguration of the President, Gen. Jorge Ubico, and the national festivities at that time. The sessions will be held in the National University School of Medicine, Guatemala City. Registration closes December 1. Those interested in giving demonstration or delivering papers at this convention may register with: Norman E. Titus, M.D., 730 Fifth Avenue, President; Madge C. L. McGuinness, M.D., 1211 Madison Ave., Secretary; or C. L. deVictoria, M.D., 1013 Lexington Ave., Executive Director.

Special information concerning the trip will be given at the Waldorf-Astoria Hotel at the Fifteenth Annual Meeting of the American Congress of Physical Therapy.

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LEGITIMACY ON BIRTH CERTIFICATES

The question of whether or not the fact of legitimacy should be removed from birth certificates is creating considerable interest and even deep concern in many quarters. At the October 1935 meeting of the Vital Statistics Section of the American Public Health Association in Milwaukee a recommendation was passed to remove the fact of legitimacy from the birth certificate. The primary concern of this group seems to be the humanitarian aspect of the move. The New York legislature is said to have passed a bill providing that there shall be no specified statement on the birth certificate as to whether the child was born in or out of wedlock.

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TUBERCULOSIS IN KENTUCKY

The Kentucky Tuberculosis Association, Dr. L. E. Smith, Secretary, is waging a valient fight throughout that state. Tuberculosis stands sixth from the top in mortality in our nation, and fourth in Kentucky. In 1933 tuberculosis was the leading causes of all deaths, at all ages, among the preventable diseases in Kentucky. Rule No. 64a of the Kentucky Health Manual is noteworthy: "No person afflicted with tuberculosis shall be employed as teacher, janitor, or in any other capacity where such person is brought

in contact with children in the school. In order to make this rule effective, it shall be the duty of boards of education, or persons with equal responsibility, to require teachers, janitors, or other employees in contact with school children to submit satisfactory evidence to the county health officer in the county where such teacher, janitor, or other person is employed, that he or she is free from infectious tuberculosis. The boards of education, or persons with equal responsibility, shall require such tests as may be deemed necessary by the county health officer to determine whether infectious tuberculosis exists among any of its employees."

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YOUR BLOOD PRESSURE FOR 10 CENTS

Coney Island this summer became the scene of a new kind of fakir, a charlatan equipped with a white coat, a stethoscope and a blood pressure instrument with an attachment enabling the "patient" to read his own blood pressure; the main concern was in collecting the ten or fifteen cents. On August 12 an operator of one of these machines was arrested on a charge of practicing medicine without a license and will soon be brought to trial. The New York State Department of Education has asked the Supreme Court to order this and other machines destroyed on the ground that their operation violates the State Medical Practice Act. Taking a blood pressure is argued to be a diagnosis of a physical condition and should not be done except by a physician. The maker of the machines has countered by filing an injunction to prevent interference with his business, and the matter will be fought out in the courts.

Every physician recognizes the lack of value of such readings under such circumstances. The practice has its serious imprecations. W. A. Baum Co., Inc., originators and makers of blood pressure apparatus exclusively, went on record with the American Medical Association a year ago as vigorously opposed to this misuse of medico-scientific instruments and they have further refused to fill large orders for Baumanometers to be used for such purposes. To our knowledge Connecticut so far has been free from such quackery, but the distance from Coney Island to Pleasure Beach or Hammonassett is not too great to be a temptation to the exploiter.

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HERNIA INJECTION FILM

A very interesting 450 ft. of film has been made showing the technique in the injection treatment of hernia.

Any local, state, sectional or national association or any hospital staff having a 16 mm. projection available may borrow this film (without charge) for showing to members. The wide interest in this film makes it advisable that you arrange for your booking early.

Address Farnsworth Labs., 159 N. State St., Chicago, Illinois.

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SYPHILIS

Thomas Parran, Surgeon General, U. S. Public Health Service, has issued a challenge to the American people to eradicate the great plague of Syphilis. An article first appearing in Survey Graphic has been condensed and offered nation wide through the columns of the Readers Digest. Most of you have read it. If you haven't you will want to. In a very clear and thorough manner Dr. Parran sets forth the facts,— the ultimate cost of Syphilis, the comparative inexpensiveness of adequate early treatment, the difficulty of educating the public in this country because of the "finger to the lips, close your eyes and look the other way" attitude, as compared with the progressiveness in stamping out the disease demonstrated by certain European nations.

Our own state has taken a long step ahead with its new marriage law. By this statute it may be possible to discover many cases of Syphilis which would otherwise be disregarded and, in so doing, reduce the prevalence of congenital Syphilis. True, the immediate result has been to increase the marriage license traffic in neighboring states, but when the public has been educated to the point of understanding the value of this blood test there will be no further objection to it. We, as public minded physicians, should use our influence with the laity as far as possible to bring this new statute of our Commonwealth to its greatest effectiveness. To quote Dr. Parran, "Syphilis must be the next great plague to go."

OBITUARIES

THOMAS WESTON CHESTER, M.D.
1866 - 1934

Thomas Weston Chester, the son of Frank Stanley Chester and Katherine Stillman, was born in Buffalo, N. Y., August 8th, 1866. Dr. Chester died August 22nd, 1934, at his summer home, Columbia Lake,— having been ill for about a year.

After preliminary training of three years spent at Hamilton College, and one year at Rutgers, from whence he graduated, he received his medical degree from Physicians & Surgeons College, Columbia University. He then came to Hartford, in 1896, and was one of the first internes at the Hartford Hospital. Finishing in 1898, he immediately started practice in Hartford, and continued actively until his death.

In 1900 he was appointed Assistant in Obstetrics and Gynecology at the Hartford Hospital, and was elevated to Chief of that Serivce in 1924, an office which he held until his death.

Dr. Chester took a great personal interest in organized professional activities. He was a member of the Hartford Medical Society, having served as its President. He was also a member of the Hartford County Medical Society and of the Connecticut State Medical Society, a member and fellow of the American College of Surgeons, a member of the New England Gynecological & Obstetric Society, a member of the American Medical Society, and a member of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

Apart from all these professional Associations, Dr. Chester was active in many fraternal and civic activities,— and it may truly be added that he was never happier than when acting as host, giving of his, and of himself, to add to the happiness of others. That the community, as well as the medical professional has lost an outstanding figure in the death of Dr. Chester, will be recognized by all who knew him.

Resolutions, adopted by the local Society at the time of his death, express so fittingly the unanimous sentiment of all members:

"The Hartford Medical Society has sustained a great loss in the death of Dr. Thomas Weston Chester, and pays tribute to the many years of pleasant association which its members have enjoyed with him in the practice of medicine in this community.

We recall the generous and gracious manner with which he enriched all of his personal and professional relationships. We recall the spirit of good fellowship when, as president, he conducted the affairs of our Society. We recall the professional skill and the generosity with which he offered aid to other physicians in solving their difficult problems.

We count ourselves fortunate, indeed, to have had him as an example after which younger men can pattern their professional conduct, for he was always enthusiastic in praise of the successes of others, though reticent and modest concerning his own, and when others made mistakes, his generosity of spirit would not allow him to harbor unkind thoughts, much less to express adverse criticism.

Always the modest gentleman, who in his chosen profession brought hope and cheerfulness to the bedside, and healing, though not as often as he wished, he lived so that the entire profession wishes his family to cherish the knowledge of our affection and sympathy in our common loss."

"To live in hearts we leave behind is not to die."

Glover E. Howe, M.D.

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THOMAS EBEN REEKS, M.D.
1879 - 1935

Thomas Eben Reeks was born March 12, 1879 while his parents, Abram and Mary (Wilkins) Reeks were on a voyage to England. He was one of a family of eight, having six brothers and one sister. Through his mother's family he was

related to Sir Hubert Wilkins, the famous Arctic explorer. Part of his early boyhood was spent in England and his education begun there. This early English training was reflected in his later life, and may have been a considerable factor in the development of the characteristic slightly restrained, but deferential and courteous solicitude which marked his professional bearing.

His family returned to the United States while Doctor Reeks was still a young lad, and his further elementary and academic education were continued in this country. His college work was begun in St. John's College in Annapolis, Maryland, and continued in Maryland University. He took his Medical Degree from the latter University in 1901, and was appointed an interne in the University Hospital where he served the following year before entering private practice. Shortly after this he married Catherine Garrison of Newburgh, New York.

The young physician then opened his offices in New Britain, Connecticut, on Arch and Court Streets, where he continued in private practice for about twelve years before he began his more public career of medical service. During this period of private practice many life-long friendships were begun and many personal contacts made which proved of such value to him and to the projects in which he was interested in later years. He also found time to take several special post-graduate courses in Europe during these years prior to his entry into public health work. His first wife died after he had been in practice about two years.

In 1909 Doctor Reeks was married to Margaret Mae Boyle in New Britain and she has carried on with him in loyal support through the many problems and achievements of the years since then.

Doctor Reeks entered the Public Health field in 1914, and from then on he devoted his efforts and talents to the advancement of this cause in Connecticut. He was elected Superintendent of Health in New Britain in 1914, and immediately bent his energies to the improvement of health conditions in this city. He urged and saw established local laboratories for bacteriological and sanitary tests.

In 1916 he advanced from local health problems to those of the State, and was appointed a director of the Bureau of Preventable Diseases and Deputy State Commissioner of Health. Here again he was instrumental in bringing about many improvements and succeeded in establishing a number of branch laboratories for the convenience of localities without laboratory facilities. Also during this period while America was involved in the World War, he was actively serving in those capacities available to him, being a member of the First District Draft Board and secretary of the New Britain Red Cross Society.

Beginning with his appointment as Chairman of the Executive Board of the New Britain General Hospital in October of 1918, followed by his appointment to the Superintendency in 1920, Doctor Reeks continued his service to humanity and to his community in this capacity until the time of his death. He brought this hospital forward with rapid strides, improving its facilities in every department to a position of recognized standing among the hospitals of the State and Nation.

Doctor Reeks had now entered into the field for which he was especially adapted. As a chief executive he had a charming yet decisive personality which instantly placed him as a leader, but he combined with a firm steady adherence to those policies which he believed to be right, a cordial friendly understanding of the opinions of those who might be opposed, so that he usually won them over to his point of view, at the same time retaining and further cementing their friendship for him.

Soon after his appointment to the superintendency our new executive turned his attention to a much needed expansion and improvement of the hospital. He inaugurated a building program with extensive plans for the future development of the hospital. Building was begun on the first portions of this project in 1922 and the portions known now as the "New Hospital Building" were completed and opened in 1924. He made exhaustive studies and visited many hospitals all over the country in order to obtain the latest and most approved ideas for hospital construction, and to work in as many improvements for the future care and comfort of the patients, and the convenience of those attending them as could possibly be accomplished. These wings constructed in 1924 were only a small portion of the complete building program which death has deprived him from seeing accomplished. Eventually he hoped to see reared in place of the old

frame and brick portion facing Walnut Hill Park two similar wings flanking a central eight story structure, all of the latest modern hospital design. The financial depression from which we are just beginning to emerge postponed the further development of this general program, but undaunted by this and other difficulties he developed substitute plans for a new Laboratory and X-ray wing which he saw launched safely upon its course before turning his attention to the crying needs of his own personal health.

But realizing fully that the outisde appearance of a hospital is of only secondary importance, the development of the personnel to constantly higher and better standards was his special concern. Particularly to the School of Nursing, Doctor Reeks devoted untiring attention. In 1917 through his efforts it was approved by the Connecticut State Board of Nurse Examiners, in 1920 the New Nurses' Home was opened, 1920 the Hospital was approved by the American College of Surgeons, and in 1925 by the Hospital Board of the American Medical Association. In 1925 affiliation with the Yale University School of Nursing for Communicable Diseases and Pediatrics was accomplished, and in 1927 the School was approved by the New York Board of Regents.

Other departments of the Hospital were also rapidly developed. The laboratory which had been confined to a small room in the "attic" of the old building was brought down close to the operating room and given well lighted more capacious quarters, and in 1921 a permanent director appointed. Even with the handicap of failing health he was constantly working on the plans for the new Laboratory addition and seeking the latest improvements for its efficient design during the last months of his life.

Doctor Reeks also continued actively in broader State and National service in addition to his many local activities connected with his Hospital Administration. He was very active on the committee of the Connecticut Hospital Association concerned with advancing proper and progressive legislation connected with medicine and spent much time and energy at the State Capitol in getting this legislation passed. He was also very active in the Tuberculosis Association and was vice president of the Tuberculosis Relief Association and an active supporter and member of the New Britain Social Service Association.

He was elected president of the Connecticut Public Health Association in 1923 and was President of the New Britain Society of Physicians from 1908 to 1910. He was particularly active in the Connecticut Hospital Association and became its president in 1926 and continued in this capacity till 1928. Because of other pressing activities he did not accept the nomination of presidency of the Hartford County Medical Association offered him during these active years.

Doctor Reeks was elected a trustee of the New England Hospital Association in Boston in 1931, serving for four years with Doctor Howland of the Peter Bent Brigham Hospital, Doctor Washburn of the Massachusetts General Hospital, Doctor Brown of the Mary Fletcher Hospital of Vermont Medical School and Doctor Hamilton of the Mary Hitchcock Hospital associated with Dartmouth Medical School.

In recent years, Doctor Reeks was known to most of us as our Hospital Superintendent and in our association with him in this capacity, we always found him a helpful friend as well as a gentle but courageous leader. His directions were always given in such a quiet but positive manner that they were followed as a matter of course and many a knotty or apparently unsolvable problem became simple and easy of solution through the keenness of his insight and his intuitive faculty for penetrating at once to the underlying difficulty whatever it might be.

He always had a kindly and friendly greeting for every one from the poorest patient's relative to the most important official who might be visiting the hospital while passing through the city. His quiet delicate humor made him an enjoyable and sought for member of many local organizations. Included among these were the New Britain Club, The Shuttle Meadow Club, the Rotarians and the Saturday Night Club.

Doctor Reeks was always interested in anything new and progressive. He was one of the first citizens of New Britain to own an automobile, and he was much interested in the development of motion pictures. He was particularly interested in the possibilities of the latter for teaching purposes and in their use for the demonstration of operations and hospital procedures. He took many "shots" and reels himself in this

connection and was an enthusiastic amateur motion picture photographer.

He apparently loved the sea from the day of his birth, and his keenest enjoyment and recreation were obtained in sailing, any type of craft, but preferably a small boat which was completely under his own control. Most of the vacation time he was able to obtain from his many medical and administrative duties was spent in sailing his own little yacht on Long Island Sound.

Doctor Reeks is missed by every member of his hospital force and most keenly by those who were most closely associated with him. The hospital personnel throughout have felt his loss as that of a close friend even more than as their superintendent. The City and State have lost a staunch and active worker.

Norman W. Loud, M.D.

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GUSTAVUS A. ANDRE, M.D.

1870 - 1935

Gustavus A. Andre, M.D., was born in New Britain, Connecticut, July 20, 1870, and after grammar and high school preparation in his native city, he entered New York University Medical School, from which he graduated in 1895.

Doctor Andre had much surgical and medical experience in the former Hartford City Hospital and was a pioneer in electro-therapeutics. His keen intuition and interpretation of symptoms, his devotion to his large clientele and intense solicitude for their temporal as well as physical welfare, were rewarded by an extensive following of grateful patients.

Doctor Andre was a keen student of medical and current events and while at times brusque in manner, possessed rare qualities of genial companionship.

In 1915 Doctor Andre married Miss Elisabeth Angus, a most charming and cultured member of one of Hartford's distinguished families. She died in 1918, leaving one son, Robert A. Andre, now a student at Williams College.

In 1926 Doctor Andre married Miss Ruth McEntee, who survives him.

Doctor Andre was summoned to his eternal reward by "The Great Physician", March 19, 1935. The celestial message arrived in the code of Cerebral Embolism.

Requiescat in pace.

M. H. Gill, M.D.

PETER FOX, M.D.

1886 - 1935

Dr. Peter Fox was born in New Britain on February 11, 1886. He died in the city of his birth on April 15, 1935.

Following his graduation from the New Britain High School he entered the University of Vermont from which he graduated with the degree of Doctor of Medicine in 1911. After an interneship at the Mary Fletcher Hospital, Burlington, Vermont, he entered into the practice of his chosen profession in New Britain where he remained until his death.

Dr. Fox can truly be cited as an example of that type of family physician whose numbers are decreasing but of whom there is such a need today. The memory of his name will not only be associated with his many splendid deeds as a physician but also, in his every day life, he gave unsparingly of his time and counsel to those in need. Commercialism found no part in his relation to the sick. He gladly gave his services to the Orphanages and to the St. Lucian's Home for the Aged to which institutions he was attending physician.

Dr. Fox was an attendant of the St. Mary's Roman Catholic Church and was a highly respected member of the parish. He was also a member of the New Britain Medical Society, The Hartford County and Connecticut State Medical Societies and of the American Medical Association. He also was a former member of the staff of the New Britain Hospital.

Dr. Fox was never married. He was most dutiful and loyal to his sister and brother and all of those close of kin.

Death came to him after a painful lingering illness of many months. The homage paid Dr. Fox on the day of his burial was a manifestation of the high regard in which he was held in the community.

George W. Dunn, M.D.

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PATRICK JOSEPH RYAN, M.D.

1865 - 1935

Dr. Patrick Joseph Ryan was born at Cumberland, Rhode Island on March 28, 1865, the son of Patrick Ryan and Mary Cunningham. He was educated in the public schools of Rhode Island before entering Holy Cross College and later spent two years at St. Charles College of Ontario. His professional training was obtained

at the University of Buffalo from which he received his M.D. degree in 1899. Following his graduation he entered the office of Dr. Daniel F. Sullivan, a prominent surgeon of Hartford, where he remained for several months before entering private practice in Hartford. He was married on October 3, 1901 to Caroline Fischer who survives him.

Dr. Ryan became attached to St. Francis Hospital as an attending physician and continued to occupy this position until 1923 when he was incapacitated as a result of a cerebral embolism. He also was a member of the Hartford Medical Society.

During the years of his invalidism until his death on September 29, 1935, he exhibited to a marked degree the same characteristics that he had displayed in his private practice. He was a retiring unassuming gentleman with a kindly sympathetic manner, extremely conscientious and these associated with a profound knowledge of practical medicine had brought to him a very large circle of loyal friends and patients. He was fortunately blessed with an ideal home life. His death poignantly brought to his friends the aptitude of those lines:

"That none could know him but to love him,
Or name him but to praise".

Patrick F. McPartland, M.D.

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DAVID JAMES MOLUMPHY, M.D.

1876 - 1935

Doctor David James Molumphy, 59 years of age, was born in Hartford, Conn., the son of the late Daniel J. and Ellen (Grady) Molumphy; and left, beside his wife, Winifred McCarthy Molumphy, a sister and two brothers.

Doctor Molumphy received his early education in the public schools of Hartford. He then attended Notre Dame University, and later attended Jefferson Medical School at Philadelphia, where he received his degree of Doctor of Medicine; later returning to Hartford, where he served an interneship in St. Francis Hospital. After leaving the hospital he commenced the practice of medicine, and was an active practitioner up to the time of his death. He was a member of the Hartford Board of Health, acting as Medical Inspector for twenty-five years.

During these years of practice he was a member of the staff of St. Francis Hospital, a member of the Hartford Medical Society, and of the State Medical Society, and was also a member of religious and fraternal organizations.

F. Arthur Emmett, M.D.

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GEORGE LINCOLN BUNNELL, M.D.

1870 - 1936

A smiling, undemonstrative, highly educated, sympathetic physician, a lover of music, beloved by patients, and by all his fellow physicians, Dr. George L. Bunnell, resident physician at Laurel Heights, the State's sanatorium at Shelton, died there suddenly of a heart attack on the morning of March 8th, 1936. The shock to his wife and to the patients, and to the medical fraternity of the State would be hard to describe.

Dr. Bunnell was born in Bridgeport, Connecticut, July 31st, 1870, the son of William H. Bunnell and Julia Foster Bunnell. He was graduated from Sheffield Scientific School, Yale University, in the class of 1896 and from Cornell Medical School in 1900. He was an interne in 1901 and 1902 at the City Hospital, New York City. During the next two years, he was Medical Examiner for the Equitable Life Insurance Company of New York. From 1904 to 1910, he was in the Philippine Islands, as Medical Inspector in the United States Public Health Department. On July 8th, 1918, he was called into active war service as First Lieutenant in the Medical Reserve Corps and was assigned to the Yale Army Laboratory School. He was later sent to the Rockefeller Institute Base Hospital, Camp Taylor, Kentucky, and to General Hospital, No. 16, at Allingtown, Connecticut. He received his discharge March 17th, 1919, while stationed at Allingtown. Then he entered the service of the Connecticut State Tuberculosis Commission, first at Cedar Crest Sanatorium, Hartford, and a year later at Laurel Heights Sanatorium at Shelton. During the absence in Europe in 1920 of the Superintendent, Dr. Edward J. Lynch, Dr. Bunnell was locum tenens at Laurel Heights and he remained at Laurel Heights until his death in March, 1936. During these recent years, he has been a beloved member of the Kiwanis Club of Shelton. On April 23rd, 1924, he married Anne Gertrude Clark, daughter of Thomas James and Delia Zeta (O'Brien) Clark, of Hartford, Connecticut, a graduate of the Rutland, Massachusetts Training School for Nurses. For many years before his death, Dr.

Bunnell attended St. Joseph's Roman Catholic Church in Shelton. It was from this church that his largely attended funeral took place.

Stephen J. Maher, M.D.

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GEORGE EUGENE OBER, M.D.
1863 - 1936

George Eugene Ober was born in Beverly, Mass., on May 29, 1863. His forebears were early New Englanders and were prominent in the affairs of Massachusetts and during the Revolutionary War. He was the son of Rev. G. E. and Adeline Eaton Ober.

His early education was obtained in the schools of Beverly Farms, Mass. His medical studies started in Bellevue Medical College in New York. Later he continued his studies at the University of Vermont where he was graduated in 1890.

In the year 1888 he married Fannie A. Kimball who also was of Revolutionary lineage. She was a true companion and helpmate. She died Aug. 18, 1929. Surviving from this union are two sons, George E. and Eugene K., both residing in Bridgeport, Conn.

Doctor Ober came to Bridgeport in 1890, and began the General Practice of Medicine, which he continued with marked ability and success until 1921, when he limited his work to Dermatology.

In the early days of St. Vincents Hospital of Bridgeport, Conn., Doctor Ober held the position of Dermatologist. He served for many years in the Dermatological Clinic of the Dispensary of the City of Bridgeport.

For Public Welfare Doctor Ober gave much time and interest. He was a member of the Bridgeport Board of Health for several terms, eventually becoming President of the Board. An outstanding achievement was his instigation and establishment of the City of Bridgeport's Laboratory. He was for years City Physician.

Doctor Ober was a member of the Bridgeport Medical Association, the Fairfield County Medical Association, the Connecticut State Medical Society, the American Medical Association and a Fellow of the Academy of Medicine of New York City. In 1913 he was President of the Bridgeport Medical Association.

Fraternally he was a member of the Elks, Pyramid Shrine, LaFayette Consistory, 32nd degree Mason, and at one time member of the Park City Yacht Club and the Algonquin. He was a compatriot of the Sons of the American Revolution.

During this busy life the Doctor was able to find some time for relaxation. Due to his early life, boating and fishing held a strong influence. He also enjoyed hunting.

Doctor Ober died June 11, 1936, at the Bridgeport Hospital, after a short illness.

Irving L. Nettleton, M.D.

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LEONARD E. de CHANTAL, M.D.
1890 - 1936

Leonard Eric de Chantal was born in a river town in the Province of Quebec on November 6, 1890.

His premedical academic education was received at Ottawa College where he graduated in 1913. From there he entered the medical school at McGill University receiving his M.D. from that university in 1918. He was a Rugby football player of note, playing end on the varsity teams of both Ottawa College and McGill University. When war was declared he was anxious to enlist at once, but was compelled by government regulation to continue with his medical course, as doctors were more valuable than enlisted men to the Canadian army, as to all armies, during the great war. He, however, served with the student training corps and it is likely that exposure and arduous drill may have had much to do with his breakdown during his fourth year in medical school. Anyway this, his first bout with his lifelong enemy, occurred near the close of his medical training and after a short lay off he was able to complete his course and pass his examinations for his medical degree. As he was barred by ill health from army duty, he gave his services to the care of the tuberculous Canadian soldiers at the Sanatorium of St. Agathe in the Laurentian Mountains where he acted as assistant medical superintendent for three years. Again suffering a breakdown, and this time a more serious one, he had to give up active work and undergo a course of treatment at Saranac Lake. From there he came to Gaylord Farm Sanatorium in Wallingford in 1922. In

spite of several minor periods of illness he practiced his profession at Wallingford with ability and distinction, bringing to his work a sympathy and understanding that won him the love of all his patients and staff associates.

He married Miss Dorothy Jane Thompson on April 2, 1929. In the fall of 1934 he was so unfortunate as to contract a pneumonia which led to a marked exacerbation of his old enemy and after a long and gallant fight which involved five operations for thoracoplastic collapse, he died at Albuquerque on August 2, 1936.

He was a member of the Connecticut State and New Haven County Medical Societies, the American Sanatorium Association and The National Tuberculosis Association.

While known but little to the members of this Society he was highly esteemed by such of his medical associates as had opportunity to estimate the high character of his professional work.

W. H. Morriss, M.D.

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CHARLES B. GRAVES, M.D.

1860 - 1936

Charles Burr Graves was born in Chicago June 10, 1860. He was the son of Addison and Helen M. (Eaton) Graves. His father died when Charles was about seven years old and his mother soon after brought her young family of three boys to New London, Conn., to bring up.

Charles lived in New London ever since. He passed through the grade schools of the city and graduated from Bulkeley High School.

He entered Yale University from whence he graduated in 1882 with the degree of Bachelor of Arts.

His medical education was obtained at Harvard Medical School from which he secured his M.D. in 1886. He spent a year in the Boston City Hospital as an interne from whence he came back to New London to establish his practice in his home city in 1887.

His was a busy, studious life, and he received many honors connected with his profession.

Dr. Graves was coroner's physician from 1896 to 1907. He was one of the original staff of the Memorial Hospital and acted as its secretary from its foundation till 1908. Subsequently he was chosen as a senior member of the Lawrence and Memorial Associated Hospitals.

Dr. Graves, in 1887, became a member of the New London County Medical Association and the Connecticut Medical Society and served as President of the latter in 1920.

On that occasion he read a paper on the Epidemic Diseases of Early Connecticut Times which he had prepared through long research and study.

He was a charter member of the New London City Medical Society and had membership in several botanical and historical organizations.

As a member of the Connecticut Botanical Society he assisted in preparing an account of the Flowering Plants of Connecticut.

He was the author of a very exhaustive chapter of medical history which was published in a history of New London County issued in 1922.

A zealous student of medicine Dr. Graves early rose to the front rank among local physicians and he had a practice that steadily grew with the passing years.

He was one of the original trustees of the Manwaring Hospital and was also a trustee of Bulkeley School and the New London Public Library.

Exceedingly quiet and retiring he was admired by friends and acquaintances not alone for his skill as a physician but also for his kindly friendliness as well as the purity of his life and the nobility of his manhood.

Dr. Graves delighted in the great out of doors and spent many of his vacation hours beside some quiet stream or lake or walking under the shimmering trees of summer.

He built a cottage by the sea near Noank, Conn., where he spent many happy, restful hours.

Later he established a summer home near Gales Ferry on what is known as Great Oak Farm.

On September 10, 1891 Dr. Graves married Miss Frances M. Miner of New London whose death on April 9, 1932 was a great shock to him.

They had two children, Addison, who died young and Elizabeth Waterman, wife of W. Norbert Hill of Noank, who now resides with their four sons in Mountain Lakes, New Jersey.

He also leaves two brothers, James M. Graves of New London and Addison Graves of Ashfield, Mass.

Dr. Graves retired from the active practice of medicine when he was about seventy years of age, much to the regret of his many patients.

On that occasion a memorable testimonial dinner and reception was given him by his professional associates in the New London City Medical Society.

Dr. Graves was a man to be loved and trusted by all who knew him.

William M. Hill, M.D.

Correspondence

September 21, 1936

The Editor of the Journal,
Connecticut State Medical Society,
179 Allyn Street,
Hartford, Connecticut.

Over a number of years I have given more than casual thought to the theoretical as well as the practical aspects of medical expert testimony. Naturally, the comments and criticisms contained in the address of our retiring President, Dr. Thomas P. Murdock, at our May meeting, interested me very much. I am a member of several groups actively concerned (among other things) in eliminating the abuses and reducing the criticisms of this phase of medical activity.

The leading editorial in the first number of our State Journal further discusses this matter and it is to certain comments contained therein, that I wish to first address myself.

The question is asked, "Why should members of our profession be willing to appear as experts for either side in a trial?" This question is a bit ambiguous. If it means that the physician has no mind of his own but that his opinion is for sale to the attorney who engages him, the obvious dishonesty of the proceeding requires no elaboration; it is perfectly apparent to all.

If the question implies that a physician has no right to express an opinion which strongly favors one or other of the litigants, then I must find myself in sharp disagreement with this implication and inquire, "Why should members of our profession *not* be willing to appear as experts for either side in a trial"?

As I see it, the question is not whether a physician shall appear as a medical expert on one side or another but whether he shall attempt to serve the cause of justice by giving sincere and scientifically sound replies to the questions put to him.

The next question included in the editorial referred to is "Why should members of our profession be guilty of giving such testimony in court that they would not dare to give in a scientific paper before their own or any other medical society?" I doubt if this criterion is quite as logical a one as it seems. As a matter of cold, hard fact, there is little resemblance between the carefully systemized construction of a scientific paper, every word of which is reviewed several times and the system of questions and answers which forms the bulk of court proceedings. When the doctor is called to the witness stand he is not asked or even permitted to present his views on the case in question in an orderly, logical and systematic fashion. He is asked questions, some of which he is instructed to answer "yes" or "no". He is frequently refused the right to qualify his replies in any fashion. The soundest item of medical logic may not be presented because the questioner, either on direct or cross examination, may fail to ask the right question. Or again, such evidence may be inadmissable because of some rule of law. To insist that a physician under such handicaps, must present only evidence which could be offered, for instance, to his local medical society, is to say the least, visionary.

While the suggestion that medical expert testimony shall be submitted to the court by a board or commission appointed by the court has often been made and is warmly endorsed, it must not be supposed that the creation or activity of such a board automatically excludes the testimony of other expert witnesses by either side.

It is clear that Dr. Murdock appreciates this. It is also apparent that he doubts the infallibility of commissions. Indeed, as one reads his account of the California woman who was declared by two panels of experts to be suffering from a uterine fibroid, when, as a matter of fact, she was about to deliver a child, one must conclude that half a dozen experts may be six times as mistaken as one.

Referring next to Dr. Murdock's address, it is interesting to note the statement, "All the lawyers whom I have heard discuss the subject, have severely arraigned the doctors and the medical societies for permitting the condition to

exist." To me, this criticism is not very impressive. After all, lawyers made the law; they provide the complicated and often cumbersome machinery by which it is administered. They have a degree of liberty which at times appears to be license in quizzing, ridiculing and at least attempting to intimidate medical as well as other witnesses. If dishonesty is apparent or suspected in the testimony of a witness, whether lay or expert, who should know better than the lawyers (including the judge) how to punish this witness for his prejudiced or possibly perjured testimony? I grant that there are abuses and that some medical testimony would shrivel under expert analysis. I think we may well criticize ourselves for our imperfections but I doubt if we need to receive too seriously, criticism of medical expert testimony emanating from a profession which initiated, and largely controls it.

Dr. Murdock goes on to say "Lay people in general, seem to have very little respect for medical expert testimony or for the medical expert". I doubt if this is true. After all, the medical expert gets along very well until he disagrees with someone — possibly another medical expert. Then, instead of conceding that each has a right to an individual opinion, the conclusion is suddenly reached that both experts are dishonest and probably stupid. Yet such differences of opinion are not rare in other fields. Attention is called to the number of recent decisions of the United States Supreme Court in which opinion was divided as evenly as possible in a group made up of an odd number of experts. Moreover, the results of recent polls suggest that public opinion in the United States is almost equally divided on the question of decorating our Chief Executive with horns or a halo.

Let us attempt to remove the veil of semi-mysticism from the popular concept of the medical expert and see what he is like and what he actually does. Let us assume a representative case.

A man is injured in an automobile accident. He is thoroughly examined and adequately treated but he does not recover. He complains of insomnia, pain and disability. He seems likely to drift into semi-invalidism. Liability for his injuries is established and a claim for damages is prepared. The defense selects a specialist who may be a neurologist, an orthopedist, a general surgeon to examine the patient.

A report is prepared which contains the examiner's opinion of the patient's condition. It may please or displease its recipient. It may contain positive statements. Certain other opinions may be qualified ones. It aims to present the examiner's views on the problems submitted. It may state:

(1) That the patient is fully recovered, that his claimed symptoms are non-existent, that he is able to return to work and that the claim has only a nuisance value.

(2) That the patient is honest enough in the statement of his symptoms but that they have no discoverable organic foundation. It is often recommended that a prompt adjustment of the claim be made for the best good of all concerned.

(3) That there is some doubt about the seriousness of the remaining symptoms. Even in the absence of organic signs, it is often impossible to say that a patient has certainly fully recovered. In such a case, further treatment may be suggested or a change of work recommended.

(4) That the patient's complaints are logical sequelae of the type of injury he received, that he is still disabled and probably will be permanently unable to carry on his usual activities, and that an attempt be made to reach an understanding with him about the amount of damages he may reasonably expect to receive.

It should be kept in mind that the specialist who makes this report is the same "medical expert" whose "testimony" is presently under attack. In this case, he is rendering expert opinion to the defense, usually represented by an insurance company, but whatever he puts into his report, the defense is under no obligation to agree with him. They may, for their own reasons, secure the services of another expert and decide to fight a case which the first expert has advised them to settle. On the contrary, they may elect to settle a case which he has assured them had no merit. He is asked for an opinion and he gives it. He has no authority.

We must assume that the expert attempts to render an accurate report of the conditions found. If he is retained by the defense in the type of case I am discussing, there would seem to be no

good reason for him to exaggerate the character of the injuries sustained by the patient. It is often supposed, however, that it is the regular thing for the expert, in such a case, to minimize the extent of the injuries inflicted and it is thought that this attitude has the approval of the insuring company. A moment's reflection will indicate that this is far from the truth. To give a distorted account of the patient's condition, whether this is done through ignorance or servility, is a shortsighted and expensive experiment. The company, relying on such counsel, may eventually pay many times the amount originally asked for. Even the wealthier insurance companies do not feel that they can afford this type of "service".

It may be said that most of the abuses develop when the expert is retained by the claimant. In such cases, it is thought that the physician is sometimes too sympathetic. He is accused of receiving the patient's complaints at their face value and of searching about for new ones to add to the list. We are told that his attitude tends to fix the symptoms in the patient's mind and that the disability is thereby prolonged. In much the same way, the medical expert is accused of a lack of critical judgment and sometimes of frank dishonesty in his attempt to support fantastic claims.

It would be idle to deny that it is extremely difficult to preserve an impersonal viewpoint when one is asked to sit in judgment upon the validity of symptoms which lack the support of signs. It would be futile to claim that all expert testimony is unbiased. Nevertheless, we should guard against accusations of dishonesty when only a reasonable difference of opinion exists. One of the most distinguished lawyers in Connecticut, a man with a long record of devotion to public service, said to me some time ago:

"When a patient engages you or a client retains me to represent in some measure, his interest in a given case, we may try as hard as we can to avoid the development of a prejudiced viewpoint, but it is inevitable that some of the things which favor his contention will seem disproportionately important to us and that, on the contrary, things which tend to lessen the validity of his claim will seem to us of less consequence."

After making some allowance for the emotional element it is still true that pain is invisible and that even minor accidents may result in prolonged suffering which the casual observer may be inclined to discount.

In describing his review of witness-books, Dr. Murdock states "Peculiarly enough, some doctors who have been thought to do a great deal of court work, did not appear as frequently as was expected". It is my impression that this is true because by far the greater amount of expert medical work is done outside of court. By this I mean that his opinion, competently and sincerely given, tends to discourage litigation and encourage some extra-mural compromise that will make a trial of the case unnecessary.

Dr. Murdock believes that the reason so many cases are tried before juries instead of before judges is because it is thought that "the juries will be more sympathetic than the courts". However, it must be remembered that each side is entitled to witnesses and that the jury hears them all testify. Moreover, I am told that when liability is clearly established, the claimant's attorney would often prefer to try the case before a judge since if he wins, the award is apt to be larger. To choose a trial by jury instead of by a judge simply because the medical testimony offered by the claimant is more likely to influence the jury than it would a judge, appears to depend on a very tenuous bit of supposition.

It is amazing to hear Dr. Murdock say that he knows many medical men of otherwise strong character, who would perjure themselves on the witness stand rather than submit to the distressing ordeal of prolonged cross examination. I do not know a single first class attorney who is given to badgering an apparently honest witness. Every lawyer of experience knows that to do so is quite certain to turn the sympathy of the jury toward the witness and against the attorney.

Dr. Murdock believes that a grave injustice is done the poor man because his poverty prevents him from preparing himself as adequately for the court, as do the great corporations. He says, "This, I think, is to our everlasting shame." It is my impression that any man, however poor, who has a sound case will find little difficulty in securing the services of an attorney to represent him in court. Often, indeed, I have known of attorneys who spent a substantial amount of their own money in the preparation of a case. Perhaps we should be ashamed of our unwillingness to take a similar chance but it will be re-

called that our code of ethics does not permit us to do professional work on a contingent basis. Here, the physician's position is vastly different from that of the lawyer who may fairly and openly do something which we are not permitted to do. It is easy to see that a physician's testimony might not be received at its face value if he had an economic interest in the outcome of the case.

Dr. Murdock quotes Friedman: "He states that the majority of judges distrust the expert". If so, it is difficult to see why they remain passive in the presence of perjury. The judge has a right to quiz the witness, lay or expert, and if he suspects that a witness is untruthful, surely he can make that witness extremely uncomfortable, to say the least. "That the trial is prolonged because of the length of the testimony" is certainly the fault of anyone but the witness, who is allowed to say nothing except in reply to a question and who is sometimes instructed to restrict his answers to monosyllables. That juries are sometimes confused because experts disagree is not surprising. Similar disagreements arise in politics, philosophy, religion and even in mathematics.

Dr. Murdock suggests that a standard fee be paid the expert witness for attendance at court and he says that this would eliminate the cutting question so frequently asked "How much do you expect to be paid for your testimony?"

Whether the fee be standardized or not, I do not see how this question can be eliminated if a lawyer wishes to ask it. If the question were asked of me, I should certainly reply "Nothing". I do not expect to be paid for my testimony but I do expect to be paid a fair recompense for the time spent in court. I see nothing in this attitude which requires apology.

While it is undoubtedly true that now and then a medical expert may grow romantic on the witness stand and while this unfortunate tendency is more or less habitual with a few members of the profession, I doubt if wide and sweeping generalizations on this point should be made. I spend a good deal of time in court and I hear much expert testimony on one side or the other. I am impressed by the fact that there is such general agreement about fundamental conditions and that such differences of opinion as arise center about the interpretations of the findings, the proportionate share of the pathology attributed to organic and functional elements and the character of the prognosis — all of which are details which may well perplex the putative referee.

As I understand Dr. Murdock's plan, the referee of the medical testimony would be a specialist familiar with the general character of the medical testimony likely to be offered. It is probable that he would belong to one or two groups:

(a) He would be a man who had often appeared in court as a medical expert. In this case, he would be a possible victim of all the criticisms and innuendoes which have been so generously showered upon his type. Calling him a referee would hardly be enough to re-establish him in the minds of the legal profession, his medical colleagues and the public whose respect we are told he has lost by becoming a medical expert. Or —

(b) He would be a well meaning and possibly determined individual but quite unfamiliar with court procedure, rules of evidence and a thousand details which a competent judge or Compensation Commissioner has at his finger tips. Dr. Murdock states, "It has become necessary for the medical expert to have a rather large and general knowledge of the law. I believe it is as much a specialty as any of the more highly specialized branches of medicine". Yet, no such qualifications are laid down for the referee who needs only be a specialist in a given field and have the approval of the State Medical Society.

Whether he belongs in group (a) or (b), or does not exactly fit in either classification, his usefulness would appear to end when he had given an opinion concerning the reliability of the medical testimony offered — an opinion which nobody need accept as conclusive and which, indeed, may not be free from error.

If the case were at all involved, a number of referees would be required. For instance, one to determine the actual amount of visual loss, another to hear testimony concerning the patient's fractured skull, a third to pass on the prognosis of his nervous symptoms. Such a list of injuries is, of course, by no means unusual and no single referee could hope competently to pass judgment on all of them.

The delay and confusion quite certain to develop is readily visualized. The attorneys for either side (with the necessary witnesses) would

be obliged to appear before the referee at a time suited to his convenience and later before the court with another group of witnesses to present evidence tending to prove or disprove liability, competency, or other points at issue.

Unless a single point is to be decided (as when insanity is offered as a defense) a board or commission would appear to have a very limited field of usefulness. In any other situation which occurs to me, whatever advantage it may have over the present system disappears when it is represented by a single referee who may be a good doctor but a poor judge.

Possibly the advantages of Dr. Murdock's plan could be retained and the objections to it eliminated by having the referee examine independently the claimant in a negligence case, for instance, discuss his findings with any other experts who may be interested and, if an agreement is not possible, go to court, listen to their testimony and then offer his own opinion.

I am in warm agreement with Dr. Murdock's thought that any necessary reforms will be most readily and efficiently instituted by cooperation with other groups interested in abolishing existing abuses.

D. P. Griffin, M.D.
Bridgeport, Conn.

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Comments On Our First Issue

The first issue of the Journal appeared in August, following which the Editor received letters from regions extending from the Atlantic to the Pacific and from Canada to the Gulf of Mexico. Many communications have been received from our own members. We quote from but one of these:

"The Medical Society of the State of Connecticut is to be congratulated upon the institution of a journal to be published regularly for the benefit of its members. This is a most forward step for the Society.

..... I should like to contragulate you personally upon the appearance, format, and content of the first issue."

From Dr. Olin West, Secretary of the American Medical Association:

"The first number of the Journal has just come to my desk and I am delighted to have it.

"I am very sure that the new journal will contribute greatly to the cause of medical organization in the State of Connecticut and that it will play a most important part toward the realization of additional worthy accomplishments by The Connecticut State Medical Society.

"I am greatly pleased with the appearance of the Journal of The Connecticut State Medical Society and with its general make up."

From Dr. Shaler Richardson, Editor of the Florida Medical Journal:

"Let me extend to you congratulations on the first issue of the Journal of the Connecticut State Medical Society. It is a handsome number; its contents are complete and well arranged. To secure as many advertisements as you have for your first issue is a noteworthy achievement. I am sure you will find that your Journal will be of great value in binding closer your county medical societies as well as in disseminating information to them."

From the Secretary of the Maine Medical Association:

"Congratulations on your splendid "Number One" issue. I like the appearance, set up and arrangement."

From Dr. Stanhope Bayne-Jones, Dean of Yale University School of Medicine:

"Let me offer you hearty congratulations on the appearance and content of the first issue of the first volume of the new Journal of the State Medical Society. It is finely printed and well arranged, and is full of interesting material. I should think that it would receive the enthusiastic appreciation of the members of the Society and will be a valuable addition to medical literature".

From Dr. J. R. Bloss, Editor of West Virginia Medical Journal:

"I wish to compliment you very much upon this first issue. It's physical make-up is most attractive and a rather careful examination of its contents is interesting. It is seldom that the first issue of a State Journal makes such a favorable impression."

From Dr. R. L. Parker, Secretary of Iowa State Medical Society:

"May we extend to you, and through you to the Connecticut State Medical Society, the congratulation of the Iowa State Medical Society in

the inauguration of this activity of your organization. The Journal is very attractive in appearance and contains a great deal of information of interest and value.

"We also note that the office of The Connecticut State Medical Society has recently been opened. We are sure that the members of your Society will feel well repaid for their increased expenditures in building up their professional organization in this way.

"You have our very best wishes for your continued growth."

From Mrs. J. Tate Mason:

"Thank you so very much for your Journal of The Connecticut State Medical Society, which you so kindly dedicated to Dr. Mason. It is a great honor and one that we all appreciate."

From the Librarian of Kings County Medical Society Library, Brooklyn:

"We acknowledge with thanks the receipt of a copy of the first number of the new Journal of your Society and wish to congratulate you upon the splendid appearance of this initial issue."

From Dr. Hohman Taylor, Editor of Texas State Journal of Medicine:

"I trust you will permit me to compliment you on the very excellent set-up and appearance of this, your first number. You have started off with a very nice line of advertising."

From Clarence G. Munns, Executive Secretary of Kansas Medical Society:

"We wish to congratulate you upon the excellent appearance of the first issue of your publication. We think it is excellent in every respect and we are particularly attracted to your typography and arrangement."

From Dr. E. G. Balsam, Secretary of the Medical Association of Montana:

"Thank you for the copy of the Journal of The Connecticut State Medical Society which is fine and will be a great addition to the number of state publications.

The interchange of state society ideas has been very helpful to me during the twenty-two years I have been secretary, and I am expecting valuable assistance from the new Journal."

From E. W. Mattson, Manager of Cooperative Medical Advertising Bureau of the A. M. A.:

"You are to be congratulated on securing so much good advertising for your August issue. It was indeed a very good number and reflects credit on the management."

From Dr. C. A. Smith, Editor of Northwest Medicine:

"You have started an interesting journal of good appearance which should be a real credit to the Connecticut profession. . . .

"I am interested in a Connecticut State journal, since I was born and spent my youth in Derby."

From T. R. Gardiner, Business Manager of the New York State Journal of Medicine:

"Permit me at this time to compliment you on your Journal.

"We would like to have you feel that our office here in New York is your office."

- NEWS -
from County Associations

Fairfield

Fairfield County Association held its semi-annual meeting in Danbury on October 7, 1936. Dr. A. J. Mendillo, New Haven, gave an interesting address on "Surgery of the Biliary Tract and Liver." This Association has modernized and revised its Constitution and By-Laws. It primarily creates a Board of Trustees to carry on the business of the Association in the interval between the regular meetings. Dr. Daniel C. Patterson, President, and Dr. Creighton Barker, Administrative Secretary of the State Society, and Dr. Stanley H. Osborn, State Commisisoner of Health, attended the meeting and addressed the members.

The Bridgeport City Medical Association held its first fall meeting on October 6, 1936. Dr. B. M. Parmelee presided and the Association was addressed by Dr. William Duncan Reid of Boston on "Treatment of Cardiac Emergencies." Dr. Reid's subject was spiritedly discussed by the majority of members.

Hartford

Dr. George E. Cogan, formerly Vice-President of the Hartford (City) Board of Health, was recently elected President to succeed Dr. Robert V. Boyce who resigned July 1. Dr. Cogan is a

graduate of Georgetown University and Medical School, has been a practising physician in Hartford for ten years, and is attending gynecologist and associate obstetrician at St. Francis Hospital and assistant gynecologist at the Municipal Hospital, Hartford.

Dr. Charles W. Daly, a practising physician in Hartford for more than twenty-five years, was appointed by Mayor Spellacy to fill the vacancy produced by the resignation of Dr. Boyce.

Dr. Wilmar Mason Allen was appointed Director of the Hartford Hospital at a meeting of the Executive Committee held on September 18, 1936. Dr. Lewis A. Sexton, for twenty years Superintendent of the hospital, obliged to relinquish his duties because of ill health, was named Director-Emeritus and the post of Superintendent was discontinued. Dr. Allen graduated from Haverford and Johns Hopkins University Medical School. Since 1925 he has been pathologist and bacteriologist at the Hartford Hospital as well as consulting pathologist for the Newington Home for Crippled Children, Mt. Sinai Hospital, and the Neuro-Psychiatric Institute and Hospital of the Hartford Retreat.

Dr. Ralph Moore Tovell has been appointed head of the Department of Anaesthesia of the Hartford Hospital. He comes directly from the Mayo Clinic at Rochester, Minnesota, where he had been a member of the Section on Anaesthesia since 1929 and Assistant Professor since 1934. Dr. Tovell is a native of Sydenham, Ontario, and a graduate of Queen's University, Ontario. After serving an interneship of one year at General Hospital, Kingston, Ontario, he held a junior interneship at Lying-In-Hospital, New York City. Following this Dr. Tovell spent three months in Toledo, Ohio, in the administration of nitrous oxide gas. Eleven months in general practice followed, then came his appointment to the Mayo Clinic. Dr. Tovell holds membership in several societies, noteworthy among these being The International Anaesthesia Research Society, The American Society of Anasthesia, and The American Society of Regional Anaesthesia.

Litchfield

Dr. Samuel Green, health officer of Southbury, has presented the Hartford Board of Health with the certificate issued by the Common Council in 1878 appointing his father, the late Dr. George S. Green, a member of the Hartford Board of Health.

Dr. Harry Hanchett again acted as host to the Litchfield County Association at its fall meeting on October 6, 1936. His cottage on Bantam Lake offers a charming setting for the exchange of experiences and the renewal of acquaintances. Harry's steaks were as fine as ever and Mrs. Harry's apple pies the best yet. Fifty-nine members and guests were on hand. Dr. Charles Turkington entertained with personal reminiscences. "The Patient Possessing Mind as Well as Body" was ably presented by Dr. C. C. Burlingame of Hartford.

Middlesex

New Haven

Dr. Paul H. Brown, health officer of East Haven, has joined the Staff of the State Department of Health as an epidemiologist in the Bureau of Preventable Diseases. Dr. Brown succeeds J. S. Cunningham, M.D., who will be on leave of absence for one year to attend the Harvard School of Public Health. Dr. Brown is studying at the Yale School of Public Health and will devote part time only to the State Department work.

New London

New London County Association held its 145th Semi-Annual meeting at Norwich State Hospital, Norwich, October 1, 1936. About seventy-five physicians attended. Among the guests were Dr. Daniel C. Patterson, President of the State Medical Society, Dr. Creighton Barker, Administrative State Society Secretary, Dr. James Douglas Gold, Chairman of the Council, and Dr. Roy L. Leak, Councilor from the Middlesex Association. Dr. Chester M. Jones of Boston, Assistant Professor of Medicine at Harvard and Physician at the Massachusetts General Hospital, spoke on "The Treatment of the Sick Liver". The following were elected to membership:

Jacob H. Lubchansky, Uncasville.
Albert G. Rapp, New London.
Pauline L. Riendeau, Norwich.

By Transfer:

Charles Ricksher, Norwich, from Middlesex County Association.

Lawrence S. Ward, New London, from Newburgh, New York.

L. E. Thompson, Waterford, from New Haven County Association.

Dr. Ross E. Black

Dr. Ross E. Black, 56 years old, one of New London's leading physicians for about one-quarter of a century, died suddenly at a New York Hotel on September 27, 1936.

Dr. Black went to New York to visit for the week-end and it was expected that he would return to New London not later than Monday. It is known that the physician, who registered at a New York hotel, was apparently in excellent health when he departed from New London.

His academic work was done at Juniata College, Huntington, Pa., his birthplace, after which he took medical training at Columbia University. After he had been an interne at North Brothers Island Hospital and several other hospitals around New York, Dr. Black started practice in New London 28 years ago, at which time he was a member of the staff of the Memorial Hospital.

He served as captain of a medical corps unit during the World War. He was a member of the New London County and the State Medical Associations, and was on the board of directors of the Home Memorial Hospital Association and medical examiner for the town of Waterford.

He was a thirty-third degree Mason and a member of the Harbour Club.

Dr. Black married Laura Ellen Page of New London on April 3, 1913. He leaves his widow and small son, Ross Elliott, Jr., and a brother, Dr. John T. Black, former health officer of the city of New London, now a resident of Hartford.

Tolland

Dr. Roy C. Ferguson of Rockville, Councilor of the Tolland County Medical Association, has resigned and at the meeting of the Association held on October 20th, Dr. Charles T. LaMoure of Mansfield Depot was elected to fill the unexpired term.

Windham

COMING MEETINGS

American Medical Association, Atlantic City, New Jersey, June 7-10, 1937. Dr. Charles Gordon Heyd, New York, President; Dr. Olin West, 535 North Dearborn Street, Chicago, Secretary.

The Connecticut State Medical Society, Hotel Strat field, Bridgeport, May 26 and 27, 1937. Dr. Daniel C. Patterson, Bridgeport, President; Dr. Creighton Barker, New Haven, Administrative Secretary.

Southern Medical Association, Baltimore Maryland, November 17-20, 1936. Program includes clinical sessions, sixteen scientific section meetings, scientific and technical exhibits, ward rounds, and alumni reunions. President, Dr. Fred M. Hodges, Richmond, Va.; Secretary-Manager, Mr. C. P. Loranz, Birmingham, Alabama.

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The registration of the Twelfth Clinical Congress surpassed all records held by previous years. 633 physicians from Connecticut and neighboring states attended. The introduction of the panel system has provoked considerable favorable comment. The members of the Society are indebted to the Program Committee and to the Committee on Arrangements for a splendid session.

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NOTICE

Members of the Connecticut State Medical Society receive the Journal without extra charge. The Subscription charge of two dollars is included in the per capita tax paid the State Society Secretary by each County Association Secretary. Checks received from members for Journal subscriptions are being returned.

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WHAT EVERY WOMAN DOESN'T KNOW — HOW TO GIVE COD LIVER OIL

Some authorities recommend that cod liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in Vitamins A and D, Mead's Cod Liver Oil Fortified with Percomorph Liver Oil may be given in one-third the ordinary cod liver oil dosage, and is particularly desirable in cases of fat intolerance.

MENTAL TEST FOR CHRONIC SPEEDERS

Persons who are obviously unfit to drive an automobile or who repeatedly and chronically defy or ignore public safety mechanisms and regulations, should be subjected to a mental and physical examination. This is the opinion of Dr. E. W. Twitchell, clinical professor of neuropsychiatry of the University of California Medical School. According to Dr. Twitchell it would not be practicable to subject every driver or prospective driver to such an examination, but it certainly should be done in the case of those who persistently defy necessary driving restrictions and menace the lives and limbs of others.

According to Dr. Twitchell, the automobile mortality and accident situation may be expected to become much worse before the people of the country rise up and unitedly demand relief. The number of incompetents now driving cars is constantly on the increase, and it is presumed that this number must increase to the saturation point of human tolerance and endurance before there is a change.

Doctor Twitchell states that he has occasionally found it necessary to submit reports to the State Division of Motor Vehicles regarding patients who were obviously unfit to drive. In one instance, he said he obtained cancellation of the license of one insane man who was being permitted to operate his car freely on crowded streets and highways. Another, a taxicab driver in one of the San Mateo peninsular towns, who was suffering from a severe nervous complaint, also came to his attention, and he has warned a number of epileptics and members of their families that these sick persons should not drive an automobile.

—*California and Western Medicine*

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The medical profession has too long lived within itself; the very atmosphere of evasiveness with which the profession has so long been surrounded has proved to be a very embarrassing thing; it is only in recent years that we have been going before the public with our confidences. It is true that we have made great strides in this direction. Today we have strong allies in many quarters that were formerly closed to us, but there is yet a vast amount of work to do.

— *Indiana State Medical Society*

EXAMINATIONS BY SPECIAL BOARDS

American Board of Dermatology and Syphilogy: Philadelphia, June. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Internal Medicine: *Written* examination will be held simultaneously in different centers of the United States and Canada in December. *Practical* or *clinical* examination will be given in St. Louis in April. Chairman, Dr. Walter L. Bierring, 406 Sixth Ave., Des Moines.

American Board of Obstetrics and Gynecology: Written examination and review of case histories of Group B candidates will be held in various cities in the United States and Canada, Nov. 7. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6).

American Board of Orthopaedic Surgery: Cleveland, Jan. 9. Sec., Dr. Frémont A. Chandler, 180 N. Michigan Ave., Chicago.

American Board of Pediatrics: San Francisco, Oct. 22-24. Baltimore, Nov. 15, and Cincinnati, Nov. 19. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Psychiatry and Neurology: New York, Dec. 29-30. Application must be sent to the Secretary before Oct. 30. Sec., Dr. Walter Freeman, 1028 Connecticut Ave., Washington, D. C.

American Board of Urology: Chicago, Dec. 4-6. Sec., Dr. Gilbert J. Thomas, 1009 Nicollet Ave., Minneapolis.

The Journal of The Connecticut State Medical Society, the official publication of your Society, is made possible in part by reason of the cooperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of The American Medical Association. The Cooperative Medical Advertising Bureau of The American Medical Association is sole advertising agent for The Journal.

Members and readers are urged to give reference to and to patronize our advertisers. When ordering goods mention the Journal of the Connecticut State Medical Society.

This cooperation will please the advertiser, increase advertising income, and enable your Society to increase the value of this Journal.

List of Registrations at the 12th Connecticut Clinical Congress

CONNECTICUT

ANSONIA
E. J. Blumenthal
M. M. Senfield
Henry Steudel

BERLIN
T. C. Hodgson

BRANFORD
Dana L. Blanchard
C. W. Gaylord

BRIDGEPORT
J. M. Adzima
Marcus Backer
A. Bernstein
Maxwell Bogin
C. V. Calvin
M. L. Cheney
Joseph Cohen
F. L. Day
C. J. Gade
J. W. Gerber
James D. Gold
D. P. Griffin
Owen J. Groark
Paul Harper
J. H. Howard
Charles E. Hyde
Eugene Kalman
A. Kornblut
A. Levenson
R. H. Lockhart
John C. Lynch
R. J. Lynch
A. McQueeney
D. H. Monahan
Louis Newton
J. S. Nickum
F. J. O'Brien
B. M. Parmelee
D. C. Patterson
H. L. Peters
U. S. Reich
Harold Ribner
A. E. Rockwell
Edward S. Smith
Joseph J. Smith
B. L. Smykowski
C. H. Sprague
C. C. Taylor
E. C. Weise
E. B. Weldon

BRISTOL
A. S. Brackett
R. A. Richardson
B. B. Robbins
B. N. Whipple
H. Winters

CHESTER
D. L. Lieberman

CLINTON
Harry R. Stone
F. C. Wilcox, Jr.

COLLINSVILLE
R. B. Cox
C. J. Kilburn

CORNWALL
W. B. Walker

COS COB
P. B. Ayers

CROMWELL
F. H. Couch
M. W. Couch
F. K. Hallock
W. N. Nelson
E. M. Pierson

DANBURY
D. C. Brown
D. F. Gibson
N. Selleck
W. M. Stahl
F. F. Tomaino

DANIELSON
G. M. Chartier
C. R. Garcin

DARIEN
F. S. Hosking

DEEP RIVER
W. J. Tabe

DERBY
G. D. Burns
J. H. Colman
T. F. Plunkett
S. B. Rentsch

EAST HAMPTON
N. H. Gardner

EAST HARTFORD
P. M. Cornwell
Samuel D. Lewis

EAST HAVEN
Paul H. Brown
Robert M. Taylor

EAST PORT CHESTER
S. Tommasello

EAST WOODSTOCK
Ernest R. Pike

FAIRFIELD
M. P. Pitock

FARMINGTON
W. W. Bunnell

GLASTONBURY
L. J. Whittles

GREENWICH
C. S. Knapp
Francis A. Read
J. L. Vickers

GROTON
C. G. Barnum

GUILFORD
G. F. Anderson
G. B. Davis
F. DeWitt Smith

HADDAM
Kate C. Mead

HAMDEN
M. Case-Downer
D. C. Darrow
Walter S. Lay
Morris Slater

HARTFORD
Harry Apter
Harry Bailey
H. A. Bancroft
C. B. Brainard
H. W. Brayton

NEW HAVEN—Continued
Mildred H. Clark
Samuel Climo
James F. Cobey
James R. Coffey
William Cohen
Howard S. Colwell
C. W. Comfort, Jr.
Fred W. Comstock
C. L. Corradino
A. N. Creadick
Robert N. Creadick
C. S. Culotta
Harvey Cushing
Michael D'Amico
Margaret Dann
Arthur B. Dayton
Clyde L. Deming
W. J. Denehy
William C. Duffy
Meyer Ethind
Lucille Farquhar
E. F. FitzSimons
Charles T. Flynn
Charles J. Foote
L. C. Foster
James C. Fox, Jr.
B. P. Freedman
Clements C. Fry
John F. Fulton
Louis R. Gans
Arthur J. Geiger
A. L. Gentile
L. A. Geraci
William J. German
H. J. Giamarino
E. F. Gildea
Thomas Gingold
A. Glass
Morris Glazer
S. J. Goldberg
George Goldman
Louis Goodman
Richard Goldstein
Ernest F. Gordon
J. F. Grady
Phillips F. Greene
Barnett Greenhouse
Joseph A. Groark
H. W. Grodin
Elizabeth R. Harrison
James C. Hart
Willis E. Hartshorn
Carl W. Henze
J. J. Higgins
M. M. Hillman
Isao Hirata
Erik Homburger
Edward B. Hopper
Albert J. Howard
Marion E. Howard
J. Louis Jack
Edith B. Jackson
George R. James
R. H. Jenkins
Carl E. Johnson
Edgar M. Johnson
Eugen Kahn
Margaret A. Kennard
Frank A. Kirby
Sam B. Kirby
H. E. Klebanoff
M. Y. Krosnick
Clifford Kuh
Maxwell Lear
R. K. C. Lee
Daniel F. Levy
D. M. Lewis
Robert M. Lewis
Joseph I. Linde
C. N. H. Long
P. F. McAlenney
R. A. McDonnell
R. E. McDonnell
W. C. McGuire
M. McQueen-Williams
P. B. MacCready
J. F. MacNish
Max Mailhouse
H. M. Marvin
A. J. Mendillo
J. C. Mendillo
Walter R. Miles
Marvin Mogil
A. H. Morse
L. K. Musselman
Louis H. Nahum
Ralph W. Nichols
W. H. Nugent
A. W. Oughterson
Robert E. Peck
Tah-Mou P'eng
Harlan B. Perrins
Joseph Petrelli
Samuel Philipson
F. L. Phillips
James P. Pigott
Allan K. Poole
Donald N. Porter
L. R. Poust
Wilson Powell
Grover F. Powers
Marian C. Putnam
Richard F. Rand
Francis H. Reilly
C. L. Robbins
F. W. Roberts
O. F. Rogers
B. A. Rogowski
A. B. Rosoff
George Rubin
Thomas H. Russell
Walter G. Russell
Robert Salinger
J. A. Saltzman
C. E. Sanford
M. M. Scarborough
R. F. Scholl
Clifton R. Scott
Peter Serafir.
F. L. Shay
M. S. Shea
S. J. Silverberg
C. Seaver Smith
Fred F. Smith
Henry H. Smith
Norman N. Smith
Willard B. Soper
F. N. Sperry
F. B. Standish
H. E. Stewart
Emerson L. Stone
Maurice J. Strauss
A. J. Sullivan
T. J. Sullivan
Henry L. Swain
M. J. Tanner
Luther A. Tarbell
K. W. Thompson
Herbert Thoms
Wilder Tileston
Frank E. Toole
R. G. Tracy
James D. Trask
Margaret Tyler
William F. Verdi
Paul W. Vestal
E. T. Wakeman
Arthur Weil
Joseph Weiner
L. F. Wheatley
W. M. Wiepert
W. R. Willard
Otto Willner
C. E. A. Winslow
M. C. Winternitz
A. M. Yudkin

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R. V. Fuldner

NEW LONDON
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Alfred Labensky
Thomas Soltz
Daniel Sullivan
H. W. Wellington
C. H. Wies

NEWTOWN
W. F. Desmond
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NIANTIC
F. Freytag

HARTFORD—Continued
Timothy F. Brewer
George H. Brown
K. O. Brown
Burdette J. Buck
David W. Byrne
E. T. Calverley
E. F. Carniglia
S. D. Clark
M. L. Clifford
Max Climan
L. P. Cogswell
E. H. Crosby
J. S. Cunningham
A. K. Davenport
E. A. Deming
Asa J. Dion
Samuel Donner
F. S. Ellison
William J. Fay
A. R. Felty
W. W. Fischer
R. B. Garland
George C. Glass, Jr.
C. W. Goff
Louis H. Gold
G. A. Gosselin
J. C. Griggs, Jr.
J. B. Graves, Jr.
A. T. Harrington
G. W. Heublein
C. C. Hoffman
W. L. Hogan
J. E. Hutchison
A. E. Ingraham
H. G. Jarvis
F. S. Jones
J. I. Kalin
J. Kaschmann
Claude C. Kelly
I. W. Kingsbury
Miller Knowlton
E. R. Lampson
A. B. Landry
H. L. F. Locke
J. R. Lyman
J. R. Miller
H. B. Moyle
F. T. Oberg
J. F. O'Connell
E. P. O'Flaherty
Ralph T. Ogden
S. H. Osborn
S. S. Quarrier
R. G. Renolds
R. D. Richman
G. J. Rosenbaum
Frank E. Roth
John C. Rowley
G. G. Russell
Jacob Schaefer
W. D. Scudder
A. F. Seibert
D. N. Shulman
Susan P. Souther
H. C. Crosby Standish
Myles Standish
W. A. Standish
Robert S. Starr
W. R. Steiner
C. W. Stephenson
R. H. Stevens
Henry F. Stoll
J. H. T. Sweet, Jr.
M. W. Taylor
C. L. Thenebe
H. G. Thompson
W. C. Townsend
W. Weissenborn
Stanley B. Weld
Donald B. Wells
J. S. Wentworth
Otto G. Wiedman
O. R. Witter
T. W. Worthen
R. M. Yergason

KENT
H. S. Turrill
E. H. Wray

LITCHFIELD
C. H. Turkington

LONG HILL
George A. Smith

MADISON
Milo P. Rindge

MANCHESTER
N. A. Burr
Stanley Chart

MANSFIELD
C. T. LaMoure

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M. J. Conroy
E. W. Foster
Martin I. Hall
William E. Hall
T. P. Murdock
H. F. Pennington
R. J. Petrucelli
R. V. Quinlan
Randolph Raynolds
C. I. Solomon
Arthur A. Tower
J. A. Wilson

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J. W. Fisher
Carl C. Harvey
R. C. Hughes
Louis O. LaBella
R. L. Leak
Joseph Magnano
Hemon Miller
James Murphy
B. A. Roccapriore
H. E. Speight
F. Erwin Tracy
Ella A. Wilder

MILFORD
W. J. H. Fischer
C. K. Heady
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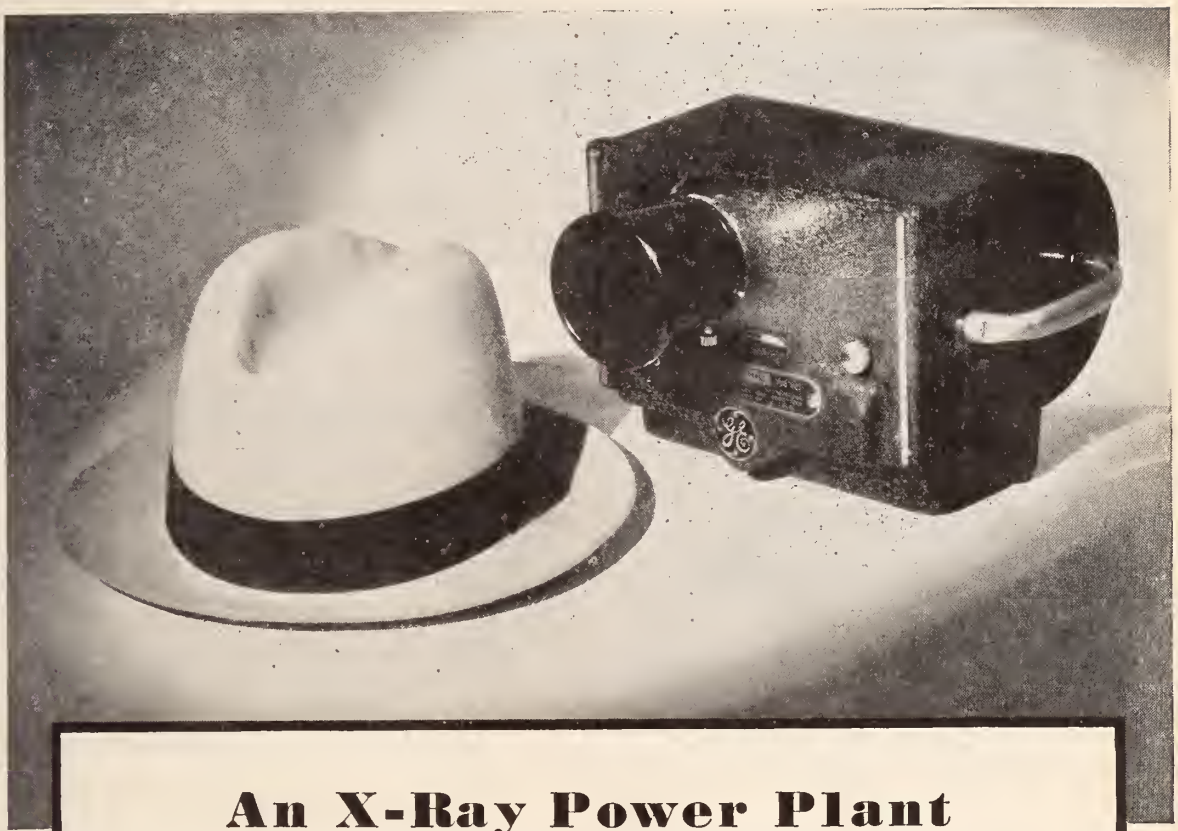
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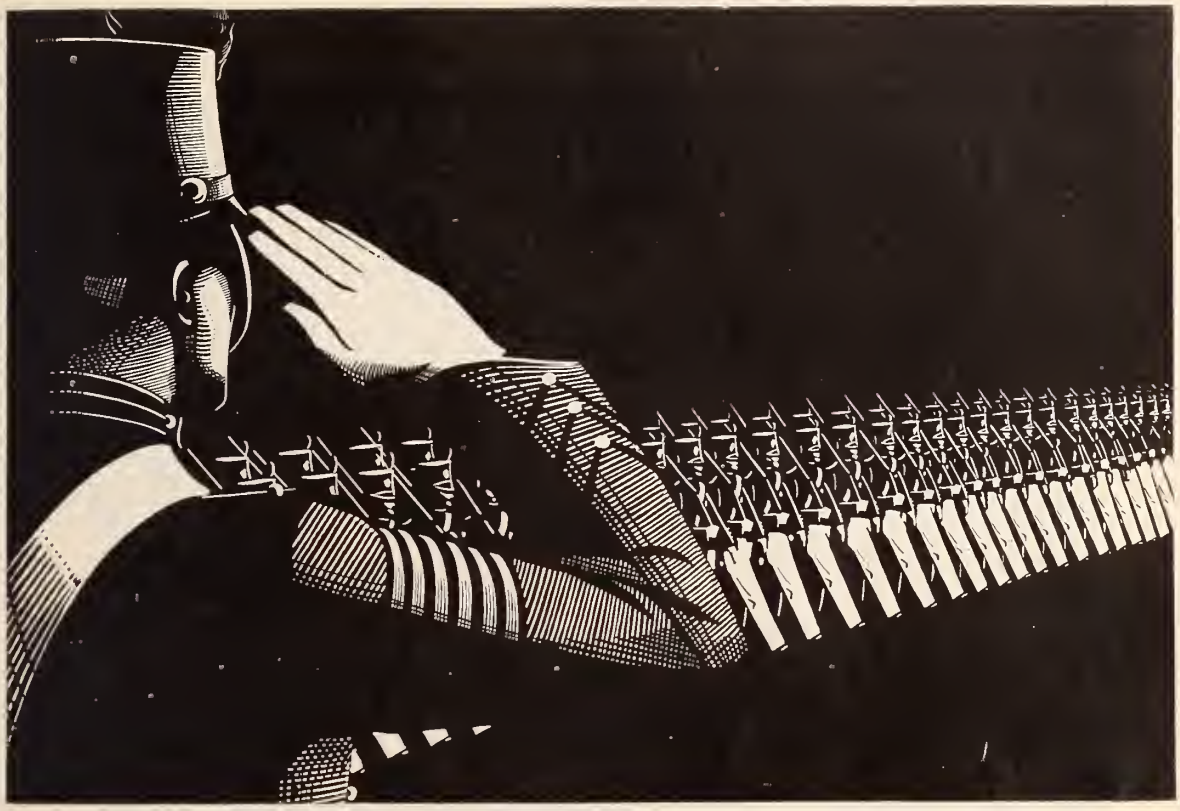
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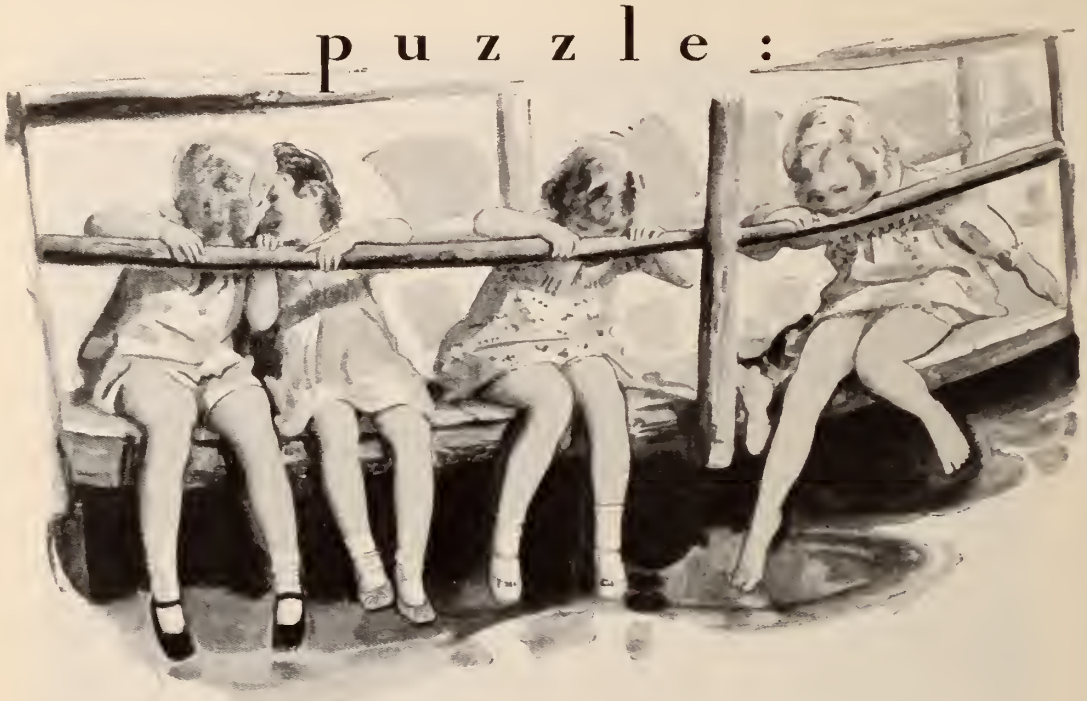
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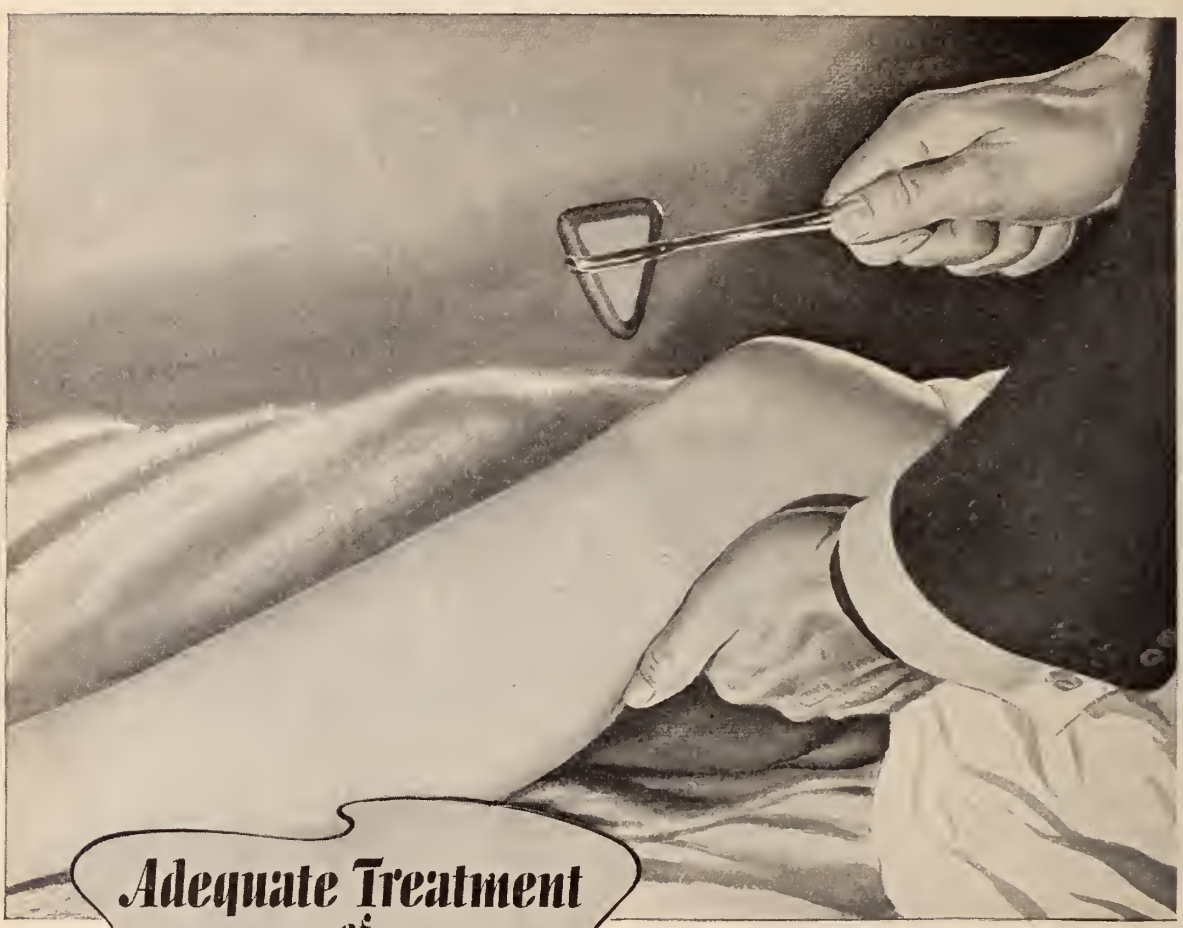
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Adequate Treatment of Pernicious Anemia

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Protamine Insulin*

ALEXANDER MARBLE, M.D.
Boston, Mass.

Very frequently it happens that in the process of acquiring knowledge concerning a disease, various therapeutic agents or measures may be introduced and enjoy a vogue for a variable period of months or years until some better means of treatment is found or until more extended trial and careful clinical research show that patients really get along just as well without the new preparation as with it, provided other factors in treatment are kept constant. Sometimes many years are required to show that a given therapeutic measure really lacks its supposed value particularly when the disease being treated is poorly understood. When strikingly specific agents are introduced, however, doubt as to efficacy cannot long be maintained. No one denies that quinine is specific for malaria, that arsenic is of value in syphilis, that liver therapy is life-saving in pernicious anemia or that insulin in adequate dosage transforms the diabetic into an essentially normal person.

How shall we evaluate protamine insulin in the light of fifteen months' trial in the United States? Has it come to stay? Will it, rather than regular insulin, become the standard preparation of the future? Can its use be wholeheartedly recommended to the profession at large?

Let us review the circumstances surrounding its introduction. We recall that Hagedorn and his associates had been working quietly in their laboratories and research hospital for two years on the problem of finding a slowly-acting insulin. We recall that after many months of work almost the first news of their results with protamine was brought to this country by a Boston physician who visited the Steno Memorial Hospital in Copengahen early in 1935. When visited later by others, Hagedorn was found to be in no hurry to rush before the public with the preparation. Furthermore, the long delay in putting it on the market has been due to the desire of the Toronto Insulin Committee to standardize methods of preparation. When finally released, the product thus will have been abundantly studied and tested under varying conditions.

We believe that protamine insulin in its present or in an even more perfected form, *has* come to stay or at least, that some slowly-acting preparation closely akin to it will in the future form a valuable part of the physician's arma-

*From the George F. Baker Clinic, Elliot P. Joslin, M.D., Medical Director, at the New England Deaconess Hospital, Boston. Read at the 144th Semi-annual meeting of the Hartford County Medical Association at the Shuttle Meadow Club, New Britain, Conn., October 27, 1936.

mentarium. One hopes that it may eventually be supplanted by insulin by mouth but at the present time this possibility seems remote although in view of the astounding advances made in the last fourteen years, it would be foolhardy to suggest such to be impossible. The protein nature of insulin itself makes difficult the devising of any scheme whereby it may be piloted unscathed from the intestinal tract to the blood stream.

I do not need to remind you that protamine insulin represents the loose chemical union of regular insulin and of a protamine, a basic protein of low molecular weight. The protamine used is derived from the ripe sperm of certain fish as the salmon or trout. When solutions of insulin and protamine are brought together at a p^H of about 7.2, a fine white precipitate is formed which on standing settles to the bottom of the container. When the turbid suspension of protamine insulin is injected into the subcutaneous tissue, a depot or reservoir is set up from which active insulin is slowly and gradually absorbed. Hagedorn's original preparation had its effect over a period of some twelve to fourteen hours in contrast to the duration of five or six hours in the case of regular insulin. Later preparations of plain protamine insulin as made in America had an effect over eighteen hours and the preparations recently introduced to which a trace of a heavy metal, as calcium or zinc, has been added, govern the blood sugar for a period of as long as twenty-four to thirty hours. This is truly a remarkable accomplishment,— to be able to regulate the blood sugar tomorrow morning by a dose of insulin given this morning. The convenience which this makes for in treatment may be readily appreciated.

Since the introduction of protamine insulin fourteen months ago we have used it with some 500 or 600* patients, most of whom are taking it in their homes at the present time. These patients are of diverse ages ranging from children under ten years to individuals over seventy years. They are of both sexes with diabetes of widely varying severity and duration.

In talking with patients one finds that certain questions invariably arise. In the discussion which follows, these questions have been anticipated and answered in the light of our experience to date.

1. Q. What are the advantages of the protamine insulin over regular insulin?

A. The advantages suggested originally, namely, that hypoglycemic shock was practically eliminated and that a saving in insulin dosage could be effected, are not the chief points which we would stress at the present time. Insulin "reactions" *are* less common and develop more slowly with the use of protamine insulin since the hypoglycemic effect is exhibited much more gradually but they do occur if a large enough dose is given even if protamine insulin is used exclusively. No great saving of units of insulin per day can be claimed although this is possible with many patients. With others, the same or slightly greater number of units of protamine insulin are required than under the former regime. It seems reasonable to expect this since with the new treatment we attempt to control the diabetes over the entire twenty-four hour period rather than over only eighteen or fewer than eighteen hours of the day.

This brings up then the real advantages of protamine insulin:

(a) With it we have a means of controlling diabetes for twenty-four hours of the day. Using regular insulin in patients with severe diabetes this is often not possible even under the best conditions. Usually with former methods fo treatment, no insulin is administered from about 6 P.M. to 7 A.M. Particularly from midnight on, even without food, the blood sugar of the severe diabetic tends to rise, reaching often a level of 300 to 400 mgms. per cent by the following morning. The rise can be in part counteracted by the giving of a 10 P.M. or midnight dose of insulin but this does not completely accomplish the desired end and furthermore, because of the inconvenience, makes the life of the diabetic deviate more sharply from the normal existence that is the aim of modern treatment. Conversely, with protamine insulin one can in any patient secure a fasting blood sugar at any desired level. With regular insulin if a diabetic is uncontrolled for six out of every twenty-four hours, this means that one-quarter of his life — ten out of forty years, perhaps —

*Note added December 10, 1936. We are told on good authority that when protamine insulin is released for sale generally, it will probably be in the form of protamine zinc insulin previously mixed by the manufacturer. As a matter of fact, we are at the moment using such preparations experimentally with good results.

may be spent in such a condition. Protamine insulin changes this and we hope because of the better control will materially reduce complications, particularly premature arteriosclerosis. (b) Treatment with protamine insulin is convenient. A patient takes at one time in the morning before breakfast all of the insulin that is to be taken for that day. To be sure that may with some patients mean two injections, one of the regular and one of the protamine insulin, but the treatment is carried out all at one time and the injections at noon, evening and bedtime abolished. One finds this point has a strong appeal for every patient.

2. Q. What types of cases are suitable for protamine insulin? Only the severe and uncomplicated ones?

A. Protamine insulin can be used with benefit in practically every case. We talk most perhaps about the severe cases because they are the ones which present the greatest problems. For the mild cases, however, protamine insulin is ideal. A patient who needs only five to ten units of regular insulin twice daily may usually be better controlled and with much less inconvenience with a single dose of protamine insulin in the morning before breakfast unaccompanied by regular insulin. The convenience of protamine insulin will make it possible to persuade more patients with mild diabetes to take insulin and thus insure better treatment generally with surely prolongation of life and avoidance of complications. This is worthwhile because as Dr. Joslin has pointed out, there are many more patients with mild than with severe diabetes. There are probably some 500,000 diabetics in the United States; he has estimated that of these there are 25,000 cases with severe, 175,000 with moderately severe and 300,000 with mild diabetes.

Protamine insulin has been used extensively and with good success in patients with surgical lesions. These patients are often elderly and often have mild diabetes easily controlled with a single dose of protamine insulin daily. It has been used successfully in cases with infection and fever. With these patients one may need during the acute phase of the infection to supplement the customary daily morning dose of protamine insulin with small doses of regular insulin given before lunch, before supper and at bedtime according to the test for sugar in the urine at those times. These supplementary doses may be given up as the fever subsides or if the infection is a subacute or chronic affair, they may be absorbed into a larger dose of protamine insulin. It is usually unwise to give protamine insulin more than once a day because of the danger of a late cumulative effect. This can be accomplished, however, if treatment is planned with this in mind and the doses given regularly.

As yet very little use has been made of protamine insulin in diabetic coma. In this condition prompt, swift action is imperative. However, one can early in treatment give a single large dose of protamine insulin which will gradually have its effect and make for fewer injections of regular insulin in the ensuing hours when recovery has set in.

3. Q. What type of protamine insulin is best?

A. In our hands best results have been obtained with protamine insulin to which a trace of zinc has been added. As stated before, the addition of the heavy metal materially prolongs the effective period so that activity may be expected to last as long as twenty-four to thirty hours. A somewhat similar action can be secured when calcium rather than zinc has been added. The calcium or zinc preparations have a further advantage over the plain protamine in that the precipitate is more abundant, more flocculent, more stable and does not have the tendency of the plain protamine to form larger aggregates which may stick to the side of the vial and dry there upon standing.

The amount of zinc added is quite infinitesimal, one milligram per 500 units. Thus for the amount of zinc to total one gram, 500,000 units would be required. Allowing forty units a day for an average dose, then 12,500 days or over thirty-four years would be required for the intake of one gram of zinc. Evidence at hand (see bibliography) suggests definitely that no toxic effects need be feared from the administration of zinc in such small dosage.

4. Q. How stable is protamine insulin?

A. The insulin and the protamine solution, kept separately, are indefinitely stable. One ordinarily suggests that both be kept in a cool place but this is not absolutely essential. After mixing, there is a slow loss of potency, amounting

to, we are informed, not more than ten per cent over a period of six months. Here again, the product had best be kept in a cool place, although this is not imperative. The protamine insulin can be used immediately after mixing and there is no need of waiting a few days for it to become more stable.*

5. Q. What precautions must be taken in mixing protamine solution with the insulin (using the material as distributed at the present time by American pharmaceutical houses for experimental use)?

A. The rubber caps of the two vials are cleansed with alcohol and with a sterile syringe one c.c. of the protamine solution is withdrawn and then injected into the vial containing 4 c.c. of U-50 insulin to which a trace of zinc has been added. The resulting mixture consists then of 5 c.c. of U-40 protamine zinc insulin. It is best to make the transfer with a sterile, dry syringe although one which has been kept in alcohol can be used if due care is taken to blow out the last traces of alcohol. It is essential that the syringe be cool; if hot, the protamine solution will coagulate as does any protein under the influence of heat.

With the addition of the protamine solution a white cloud forms immediately. The vial is gently tumbled and rotated, not violently shaken, to insure thorough mixing and this must be done each time before using because practically all of the insulin is bound up in the white precipitate.

6. Q. Can patients be controlled on one daily dose of protamine insulin alone?

A. Many patients, including all mild and some of the moderately severe cases, can. With many others whose diabetes is more severe, a simultaneous dose of regular insulin must be given to take care of the forenoon glycosuria and hyperglycemia. This is best given in two separate injections although one syringe may be used if the dose of regular insulin is given first. Some patients have given the two doses through the same needle by using two syringes and shifting the needle slightly between the injections. Using the present preparations, it is essential that mixing of the regular and the protamine insulin not occur because protamine has been added in large excess and will bind any regular insulin with which it comes in contact.

7. Q. When a simultaneous dose of regular and protamine insulin is given, how does one decide upon the proper dose of each?

A. The shift from regular insulin two, three, or four times a day to the new regime can best be accomplished during a hospital stay of five to ten days where controlled conditions are possible. As an initial dose, one may give an amount of regular insulin equivalent to that ordinarily taken by the patient before breakfast. As the simultaneous dose of protamine insulin one may give from one to one and a half times the total dosage ordinarily taken by the patient during the rest of the day, namely, before lunch, before supper and at bedtime. Changes in dosage are usually necessary every day or two until one arrives at the proper adjustment. Two specimens of urine are important: the rising specimen which governs the size of the dose of protamine insulin and the specimen just before lunch which governs the size of the dose of regular insulin. Blood sugar estimates at these times and at four and nine P.M. are helpful though not indispensable. Such estimations may be conveniently done on capillary blood from a finger or ear lobe.

At the onset of the new type of treatment considerable loss of sugar in the urine may be noted in some cases in the evening, after supper. After a few or several days this usually clears up until negligible amounts of sugar, if any, are wasted. It must be emphasized that sufficient time must be allowed for stabilization with protamine insulin. Particularly at the beginning of treatment, two or even three days must often be allowed between changes of dosage. Likewise, one must not become discouraged if the diabetic condition cannot be brought under control in as short a space of time as with regular insulin.

8. Q. What is the procedure when treatment is begun with a patient who has never taken insulin before?

A. The initial dose may be 10 or 20 units at one time in the morning before breakfast unaccompanied by regular insulin. If after two or three days it is apparent that a larger dose is necessary, then an increase may be made to 30 units, and after another two or three days to 40 units daily. Intermediate dosages may of course be indicated by the situation at hand. In the average case, a dose of 40 units or less will cause the patient to awaken the next morning with a normal blood sugar. Hypoglycemia in the early morning hours is of course a barrier to further

increase in dosage. If such occurs and if the dosage used is inadequate to control hyperglycemia and glycosuria in the forenoon, then a small dose of regular insulin, say 10 units, may be given simultaneously with the protamine insulin. From this point on finer adjustment of dosage is carried out as outlined in the preceding section.

9. Q. What dietary adjustment is necessary?

A. We have continued to give diets of approximately the same type as on the former regime, namely, with from 130 to 200 grams of carbohydrate, 60 to 80 grams of protein and 80 to 100 grams of fat daily. Since the protamine insulin acts gradually over a prolonged period, an extremely practical and helpful measure is the spreading of the food out over the waking day by the giving of a light lunch of 10 to 20 grams of carbohydrate in the mid-morning, mid-afternoon and at bedtime. These amounts of food are not added to the total diet but subtracted from it so that a lessened load is placed upon the protamine insulin at the three main meals of the day.

Our impression is that using protamine insulin, somewhat more lee-way is possible in the matter of diet than before, but since patients need no urging to commit dietary indiscretions, this point is best left unemphasized.

10. Q. Since the protamine is a protein what evidences of allergy or hypersensitiveness to it are seen?

A. We have observed a slightly greater incidence of hypersensitiveness to the protamine insulin than we have to regular insulin but there have been no marked allergic reactions. As with regular insulin, continued use usually renders less marked or causes to disappear entirely the redness, soreness, swelling, itching, and urticaria which a certain percentage of patients experience at the site of injection, usually a few or several days after the institution of treatment with insulin. No evidence of immunization in the sense of the necessity of an ever increasing dosage, has been noted over a period of months of use.

In the foregoing discussion theoretical considerations have been avoided. Furthermore no mention has been made of the Stearn's crystalline insulin, insulin tannate or the histone — insulin combinations which have been used elsewhere because we have had no personal experience with these. We have thought that we could be of most service in subjecting the various types of protamine insulin to clinical trial and that further preparations at the present time would lead to confusion in our own studies. The experimental use of these other types of slowly-acting insulin in the hands of their originators or sponsors is to be encouraged because certainly the last word has not been said. We believe that with Hagedorn's introduction of protamine insulin a great advance was made and the way opened for further progress. We look forward confidently to the future with the hope that with better control of diabetes made possible in a convenient fashion, patients may live longer and happier and that complications, chiefly acidosis and premature arteriosclerosis, may be prevented.

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Medicine, except for engineering, is the only profession that has survived in Soviet Russia. In 1917 Russia destroyed all the professions except medicine. —*Heyd*

The Physiology and Management of the Tachycardias*

L. H. NAHUM, M.D., and H. E. HOFF, M.D.
from The Laboratory of Physiology, Yale University School of Medicine

The first recognition of paroxysmal tachycardia as a clinical entity occurred in 1888 when Bristowe published nine case histories in "Brain", describing what he characterized as "paroxysmal hurry of the heart." The present name, paroxysmal tachycardia, was given to this condition a year later by Bouveret (1889). Among the nine cases Bristowe described, four were clearly auricular fibrillation because they had total irregularity of the pulse and one of them was associated with a goitre. Although Bristowe did not appreciate the difference between the regular and the irregular tachycardias, nevertheless he recognized and recorded the characteristics of the regular tachycardias almost as clearly as we know them today. These were: the sudden onset and termination of the paroxysm; the variable duration from minutes, to days and even weeks: the absence of circulatory embarrassment except in those cases of very long duration and those associated with organic heart disease; the absence of any ascribable cause with the possible exception of exertion and fatigue; and finally, the inadequacy of medical treatment, except the use of digitalis in two cases that showed heart failure as an accompaniment of the paroxysms.

The development of electrocardiography is largely responsible for the clarification of this problem. From the accumulated contributions of a large number of workers, certain specific diagnostic points may be recognized:

(a) *Sudden onset and termination:* Without warning, the rate which may have been 80 or 90 suddenly becomes 150, 200 or 250. Similarly, without any preliminary slowing, the paroxysm terminates suddenly, giving way to the regular rate. Simple questioning of the patient almost always elicits this significant characteristic of which the patient himself is well aware.

(*b*) *Absolute constancy of the beat:* If an exact record is taken during the paroxysm, the heart rate will be found to be fixed, regardless of breathing, activity or emotion. Ten minutes later or 2 weeks later, if the tachycadria persists, the rate will remain the same. By contrast, a normal rhythm is remarkably variable and responds measurably to activity or emotion. It requires but a stethoscope to the heart and a count of its rate for 60 seconds to determine clinically this significant sign.

(*c*) *Peripheral signs:* The blood pressure usually falls considerably, the pulse pressure declines, and this furnishes a rough measure of the marked reduction in the volume of blood expelled by the heart during each beat. The total cardiac output usually falls also, and may be so small as to cause alarming signs of cerebral anemia, such as dizziness and fainting. Occasionally precordial distress develops after a few hours, probably resulting from insufficient coronary blood flow. If the attack persists the heart may finally dilate and cause many of the peripheral manifestations of venous engorgement. Whether these signs appear early or late, or not at all, depends upon the amount of blood flowing through the coronary arteries and also upon the integrity of the myocardium. In coronary sclerosis or valvular heart disease, alarming symptoms may appear. Usually however, no other evidence of heart disease is found and the patient tolerates the rapid rate very well, some even going on with their work. The doctor is often surprised at the remarkable lack of symptoms in a patient with a heart rate almost too fast to count.

Once the paroxysm terminates, the restoration of the normal circulation is rapid, and signs ordinarily of grave import, such as gallop rhythm, pulsus alternans, anoxemic complexes in the electrocardiogram, quickly disappear and

*Presented before New Haven County Medical Association, Waterbury, October 29, 1936.

yield to the signs of normal circulatory dynamics.

(*d*) *Electrocardiogram:* This graphic record of cardiac events at once reveals the nature of the arrhythmia under consideration by demonstrating the location of the abnormal pace-maker. One sees that the whole paroxysm is but a rapid succession of extrasystoles. The auricular paroxysms are found about ten times more frequently than the ventricular and are found usually in patients without any evidence of structural damage to the heart. The ventricular type is found most commonly in patients with organic heart disease, especially those suffering from coronary thrombosis.

If paroxysmal tachycardia is but a rapid succession of extrasystoles, it becomes apparent that knowledge of the cause of the extrasystole should throw light on the mechanism of paroxysmal tachycardia, and this in turn should furnish a basis for proper control. It is now possible to distinguish between two types of extrasystoles:—

(a) *Physiological extrasystoles*: Interaction between vagus and sympathetic nerves upon the heart.

A simple way to produce extrasystoles is to inject a small amount of adrenalin intravenously. There is a sudden rise in blood pressure, resulting in a reflex slowing of the heart, the so-called carotid sinus reflex, which is brought about by the action of the vagus nerves.

During the period of slowing, extrasystoles may appear, their frequency and duration depending upon the balance existing between the reflex inhibition which suppresses impulse formation and the amount of adrenalin acting upon the heart which increases impulse formation along the whole conduction system. In this way, slowing alone or slowing with occasional extrasystoles, or transient slowing with numerous extrasystoles and even ventricular tachycardia may be produced by varying the dose of adrenalin. Such extrasystoles are physiological and indicate no structural cardiac damage. Similar extrasystoles may be obtained by procedures which increase the action of the sympathetic nerves to the heart, the effect of which is practically identical with that of adrenalin. Reflexes from the abdomen, from the carotid sinus and from the brain, may serve to increase impulse formation in the conduction system of the heart and cause extrasystoles, provided the vagus nerve is intact and keeps the pace-maker moderately inhibited.

(*b*) *Pathological extrasystoles*: Nerve interaction plus a toxic agent that sensitizes the heart to the action of adrenalin and the sympathetic nerves.

It is now recognized that certain poisons as well as diseases serve to sensitize the heart to the action of adrenalin or to the action of the sympathetic nerves. Thus Levy (1913) found extrasystoles in chloroform and nicotine poisoning. These irregularities however, disappeared, when by section of the sympathetic nerves to the heart and adrenalectomy the heart was deprived of these influences. Similarly, benzol, petroleum ether, and iso-amyl-acetate sensitize the heart to adrenalin and the sympathetic nerves, thereby giving rise to spontaneous extrasystoles as well as paroxysmal ventricular tachycardia (Nahum, Hoff and Hoff, 1936).

Strong sympathetic stimulation to the heart may also give rise to paroxysmal auricular tachycardia (Nahum and Hoff, 1935).

It is thus apparent that two factors contribute to the production of both extrasystoles and paroxysmal tachycardia:

1. Preponderant activity of the sympathetic nerves and adrenalin.

2. Toxic agents, such as nicotine, choloroform, benzol, ether and many others, some not yet determined, that serve to sensitize the heart to the action of its sympathetic nerves and adrenalin. The role of treatment therefore narrows down to measures designed either to increase the effect of the vagus upon the heart, or to paralyze the action of the sympathetic, or both. It must, however, be emphasized that where toxic influences exist, they must be eliminated.

1. Measures that stimulate the action of the vagus upon the heart.

(a) The carotid sinus reflex: Stroking the carotid artery in the neck at the bifurcation of the internal and external carotid, in about ten per cent of cases sufficiently discharges the vagus to suppress the excited auricular focus, and this serves to restore the control of the normal pacemaker. First the right carotid is stroked ten to twenty times, and if ineffective, then the left. In the majority of cases, however, this does not terminate the attack.

(b) Other reflexes that discharge the vagus: (1) The oculo-cardiac reflex: Pressure over the eye ball at times sufficiently discharges the vagus to arrest an attack. (2) Bending the head over between the legs will at times discharge the vagus; likewise, holding the breath or drinking ice water.

(c) Drugs: (1) The digitalis bodies are known to effect a strong vagus influence upon the heart. Intravenous injection of 0.5 mg. of strophanthin has been reported to terminate paroxysmal tachycardia. One patient with valvular disease that we saw repeatedly in attacks of paroxysmal tachycardia always terminated his paroxysm after an intravenous injection of 0.5 mg. of strophanthin. In most cases, however, no emergency exists demanding sudden termination and in such patients, 0.5 gram of the digitalis leaves, followed in six hours by 0.25 gram, repeated six hours later, may terminate an attack.

(2) Morphine is a very useful drug for such patients. It reduces mental and physical fatigue and also stimulates significantly the vagus, so that in some patients morphine alone is sufficient to stop the paroxysm. It should be emphasized, however, that when it is combined with atropine, as it often is by many physicians, the atropine paralyzes vagus influences upon the heart and tends to prolong the tachycardia.

(3) Ergotamine tartrate. This drug acts by paralyzing sympathetic nerve endings, causing at the same time a relative vagus preponderance; it produces nausea and vomiting as evidence of vagus overactivity. One of our patients, a man 67 years old, terminated three out of four paroxysms of tachycardia by taking a hypodermic injection of 1 mg. of ergotamine tartrate. As nausea and vomiting developed, the paroxysm suddenly terminated.

(4) Quinidine we have not found effective in terminating paroxysms, though it is reliably reported (White, 1931), that 0.4 gram intravenously is occasionally successful. This procedure however may become imperative if the tachycardia is ventricular in origin.

(5) Acetyl - B - methylcholine chloride. The most uniformly successful results may be obtained with this drug which in the heart reproduces every effect one obtains with vagus stimulation. (Starr, 1933). The usual dose required is 20 mgs. subcutaneously. The absorption is immediate and within one to two minutes the general effects of parasympathetic stimulation appear such as lachrymation, salivation, nausea, vomiting. At the same time suppression of the excited focus in the heart gradually proceeds, so that a progressive slowing with return of normal pace-maker rhythm occurs within four to five minutes. If this does not take place, an additional 10 mgs. repeated in 15 minutes, may be relied upon to terminate the paroxysm. If the dosage is sufficient, practically every case of paroxysmal tachycardia may be expected to yield to this therapy. When employing this drug, one should however watch the blood pressure very carefully and always have 1/100 gr. of atropine sulphate ready in a syringe for immediate use. Atropine abolishes the action of Acetyl-B-methylcholine chloride, and should be injected if alarming signs of collapse should appear.

(6) Adrenalin: Since paroxysmal tachycardia is set up and prolonged by this drug, its use to offset collapse in such patients can only aggravate the symptoms and prolong the tachycardia. In ventricular tachycardia, it might even force the heart into ventricular fibrillation and sudden death.

Whether patients should be treated between attacks depends largely upon the frequency of the attacks and the existence of heart failure. Clearly if the paroxysms are infrequent, occurring once in a year or two and the patient is otherwise normal, there is no indication for treatment in the interval. If the tachycardia comes every week or month however, or if evidence of myocardial incompetence exists between attacks, it is best to keep such a patient under constant and adequate digitalis therapy. Furthermore, the life and habits of every patient should be carefully scrutinized for those factors generally recognized as promoting attacks, such as excess tobacco, alcohol, mental and physical fatigue, anxiety neurosis, etc. Patients should be given clear and sensible advice regarding the elimination of all toxic and nervous influences recognized as contributing to the recurrence of their paroxysms.

It must be recognized that mild heart failure is not infrequently a cause of paroxysmal tachycardia. Bristowe reported his best results in two

patients with heart failure that were treated with digitalis. The patients not only were cured of their failure, but received permanent relief from recurring paroxysms. Patients should therefore be carefully examined for the presence of mild heart failure, since its adequate treatment is the best prophylaxis against recurrent paroxysms.

It is important to remember that while isolated extrasystoles of ventricular origin are usually of less clinical significance than the auricular type, nevertheless under certain conditions the appearance of ventricular extrasystoles furnishes evidence of a damaged myocardium. Among them are those which occur (a) following coronary thrombosis, (b) during certain acute infectious diseases, (c) in auricular fibrillation as a result of digitalis overdosage and (d) as a result of certain poisons.

Because ventricular tachycardia may follow such extrasystoles, it is important to recognize their appearance and determine if there is multiplicity of origin, since in this circumstance the danger of the development of ventricular tachycardia is increased. Furthermore, it should be emphasized that whereas auricular tachycardia, when persistent, may lead only to venous engorgement, ventricular tachycardia may, in addition, terminate in ventricular fibrillation and sudden death. It is therefore important to distinguish ventricular tachycardia clinically, because its treatment requires a different approach.

While in auricular tachycardia the rhythm is prefectly regular, in ventricular tachycardia, though the rhythm may be regular for seconds or even a minute, there are to be detected, if one listens long enough, occasional irregularities which may also be detected at the pulse. Secondly, as pointed out by Levine (1936), the first sound may be altered from time to time, so that it will vary in intensity and quality, from an accentuated, to a muffled, to a reduplicated sound, all this arising from the fact that the auricle and the ventricle beat independently, so that the sounds will at times fall together and again apart. The electrocardiogram of course will at once reveal the type of tachycardia, since in this arrhythmia, there is a succession of extrasystoles which take their origin in the ventricles.

This type also terminates suddenly, but because of its association with grave heart disease, it is important to recognize its nature quickly and treat it promptly, first, because the structurally damaged hearts in which it is usually found cannot long survive a rapid rate and second, because sudden death by ventricular fibrillation is not uncommon.

The impulses in the ventricle which give rise to the abnormal rhythm are probably generated by excessive sympathetic nerve stimulation and adrenalin, just as the auricular type is, but these foci cannot easily be suppressed by vagus influence because in mammalian hearts vagus distribution is limited for the most part to the auricle. Furthermore, all clinical experience has shown the total ineffectiveness of methods based upon discharging the vagus nerve. Thus, digitalis, the carotid sinus reflex and the oculocardiac reflex are entirely useless.

The most successful methods thus far employed are quinidine clinically, and acetyl - B - methylcholine chloride experimentally. The dose of quinidine varies with each individual, some requiring as high as 1 gram every four hours if tolerated, while others are relieved by a much smaller dose. The important principle to follow is to increase the dose rapidly, to the point of cardiac response, unless thwarted by the patient's intolerance to the drug. In our hands every type of ventricular tachycardia resulting from chloroform and benzol poisoning was prevented by injecting acetyl - B - methylcholine chloride. It may be said that although no vagus endings have been traced into the mammalian ventricle, nevertheless, the ventricular conduction system is subject to inhibition of its rhythmicity by this drug.

Summary:

1. Cardiac rhythmicity is supported by the action of the sympathetic nerves and adrenalin.

2. Under certain pathological conditions there is found increased response of the heart to the sympathetic nerves and adrenalin with the production of extrasystoles and paroxysmal tachycardia.

3. Since the vagus suppresses impulse formation in the auricle, procedures calculated to discharge the vagus terminate paroxysmal auricular tachycardia. The cardio-inhibitory reflexes, digitalis and morphine, have such an effect.

4. Acetyl - B - methylcholine chloride pro-

duces vagus effects in the heart and in sufficient dosage may be expected to stop almost every attack.

5. Adrenalin will promote and prolong paroxysmal tachycardia and should never be used.

6. Atropine paralyzes the vagus and should not be employed.

7. Ventricular paroxysmal tachycardia is usually, though not always, associated with structural damage in the heart. It cannot be terminated by vagus influence but requires proper dosage of quinidine or acetyl - B - methylcholine chloride.

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CONTRACT PRACTICE DEFINED AND EXPLAINED

By the term CONTRACT PRACTICE as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are:

1. When there is solicitation of patients, directly or indirectly.

2. When there is underbidding to secure the contract.

3. When the compensation is inadequate to assure good medical service.

4. When there is interference with reasonable competition in a community.

5. When free choice of physician is prevented.

6. When the conditions of employment make it impossible to render adequate service to the patients.

7. When the contract because of any of its provisions or practical results is contrary to sound public policy.

Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole.

The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy. —*Journal American Medical Ass'n.*

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FEDERAL FUNDS AVAILABLE FOR CONNECTICUT FOR 1937

Maternal and Child health Services	$50,502.34
Services for Crippled Children	53,476.46
Child Welfare Services	18,703.99

Use of the Rogers Method in Treating Uncomplicated Compression Fractures of the Spine*

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Upon reviewing the literature on compression fractures of the spine, one is favorably impressed with the revisions, and the radical changes which have occurred in treatment during the past few years. The history of the treatment of fractures affecting other parts of the body conclusively demonstrates that good results are accomplished by proper reductions. Although the same general principles have always been applied in treating compression fractures of the vertebrae, only recently have new methods been devised and better results obtained.

Wallace[8], R. Watson Jones[17], Davis[6], Dunlop[1], and Rogers[12] are responsible for these changes and have revolutionized the treatment of compression fractures of the spine by hyperextension. It is not that this generally accepted principle has not been in vogue for many years, but that decompression of the vertebra producing normal anatomical restoration is new and now practiced, and is mainly responsible for the encouraging and satisfactory results. Each of the above men utilize a different technique to accomplish decompression and correction of the deformity. Since their publications there have been some minor modifications in the different methods employed.

Wallace devises an elevating frame which lifts the patient's body above the level of the bed to produce lordosis. R. Watson Jones suspends the patient prone between two tables, the shoulders resting on one higher than the buttocks, which allows the body to sag, producing hyperextension. Davis suspends the anaesthetized patient's feet overhead in the prone position, and exerts pressure over the fracture site, forcibly hyperextending the spine. Dunlop obtains forcible hyperextension of the spine by tossing the anaesthetized patient supine into the air, and catching his weight across a taut sheet held by assistants. This sheet is passed diagonally underneath the chest, and under the arm of the opposite side. Counter-traction is furnished by two men pulling downward on the ankles. Rogers uses his ingenious hyperextended bed which will be described presently. This bed has been used in all of the cases in this series. R. Watson Jones and Rogers are the only two who do not anaesthetize their patients.

The Spine

The spine plays as important a part in the clinical problems of today as any other entity which confronts the orthopedic surgeon. Its complex mechanism is unique in structure and function, comprising segmented blocks which act as a sustaining rod to support the head and the trunk. These are firmly united by strong anterior and posterior common longitudinal, lateral vertebral, supra, and interspinous ligaments. The segments are separated by fibrocartilaginous discs. The spine also consists of four curves in the sagittal plane, namely: the cervical convexity, dorsal concavity, lumbar convexity, and the sacro-coccygeal concavity.

Mobility of the intervening joints differs from other joints in the body, in that motion occurs in flexion, extension, lateral bending, rotation, and torsion. The joint surfaces are large and broad. They transmit the stresses and strains of functional activity, as well as the physical shocks of mechanical injury. While these injuries result in destruction of the intervertebral discs, they also cause compression fractures of the spine.

When any pathological condition affects one vertebra, it disrupts the automatic equilibrium and causes an imbalance of the load for the en-

*Based on presentation at the Boston Orthopedic Club of Boston, December 14, 1936.

tire spine. It is remarkable what degree of adaptability the spinal column possesses under favorable treatment.

Diagnosis and Etiology

Early and accurate diagnosis is essential for a satisfactory reduction, and both are of equal importance. Osgood[11&16] has stated, "If the diagnosis is made early, and rational and proper treatment instituted, the return to full earning ability may be confidently expected". The accuracy of a good history is of paramount importance in making a diagnosis, even before the X-rays are taken. Whenever a patient has fallen forcibly flexing his spine, or sustained an injury in a "jackknifed" position, a lesion in his spine should always be suspected, and a broken back considered until proven otherwise.

With the present-day roentgenological equipment there should be no unrecognized fractures of the spine. Complete roentgenological study cannot be stressed too emphatically. This should include an anterior-posterior and lateral view of the entire spine, and of the lumbo-sacral joint, also an oblique view if necessary. Occasionally distant fractures can be silent if they are not excluded in the original X-ray examination. The exigency of a neurological examination should never be neglected.

Some of the causes of these fractures are diving and coasting mishaps, automobile and train accidents, falls from heights such as ladders and scaffoldings, injuries from falling weights, low bridges, cave-ins in the mines, or any other trauma which hyperflexes the spine.

Symptoms

Twenty years ago Roberts[1] quoted textbooks as stating, "Paralysis is the most important and constant symptom in fracture of the spine." The failure to recognize these lesions was due to the fact that fractures always were supposed to be accompanied by evidence of cord pressure. This is not true as the majority of the crush fractures, which include 40% of all spine fractures according to Osgood[11], have no symptoms of cord pressure. The most common symptoms encountered are pain in the back, tenderness localized over the site of the lesion, limitation of motion in all directions, disability, persistent weakness, and definite demonstrable kyphos. All of these may not be present. At times associated abdominal symptoms may mask the real picture, and focus attention away from the spine.

Frequently patients do not complain of severe pain, or even consider their injuries serious. It is not uncommon to have fractures of the spine treated as a sprained back with adhesive strapping. This occurred in six cases in this series. "The layman's belief", quoting Rogers [13], "that a broken back results in paralysis, crippledom or death is no longer true."

Shock is not common in simple fractures of the spine, but when present is usually indicative of complicating injuries. These may be a ruptured viscus, fractured skull, ribs, sternum or extremities, a rupture of brachial plexus or hemothorax. The importance of recognizing an adynamic ileus should never be overlooked.

Vertebra Involved

Osgood[16] reports that 70-80% of the cases involve either the eleventh or twelfth dorsal, or the first lumbar vertebra. In this series 69% of the fractures occurred in the twelfth dorsal and the first lumbar vertebra. When the eleventh dorsal is also included, the percentage is increased to 84. Hatch[26] has remarked that the weakest spots in the spine are the last two dorsal and the first two lumbar vertebrae. The normal kyphotic curve of the dorsal region is reversed into the normal lordotic curve in the lumbar region. In two of the cases in this series there were compression fractures of the spinous processes. In only one, case No. 9, were the laminae or pedicles involved.

Age and Sex

Hartwell[2] in 1917, reporting a series of one hundred and thirty-three fractures of the spine, found seven women and one hundred and twenty-six men. Boorstein[18] reports 86% males in his series of forty-nine cases, MacKinnon[19] found forty-five males in a series of fifty. Osgood[11] remarks in his review of two hundred and seventy-two spinal fractures that the increase in automobiles and sports has increased the incidence of fractured spines in women. In this series of thirteen cases, 54% of them are women, all of the fractures resulting from falls except one, whose injury was received tobogganning. The youngest person in the series was seventeen and the oldest was sixty-two, and 46% of them were in the fifth and sixth decades.

The Rogers Bed

While the use of the Rogers Bed is not new in some localities, it has been available for only three years in Hartford. The exceedingly favorable response in the cases treated has stimulated my interest in the method employed by Rogers[12, 13]. It is too soon to report end results as this series was started in January of 1934, and includes the small number of 13 cases. However, the results are striking enough to afford convincing evidence in behalf of his method in the treatment of these fractures.

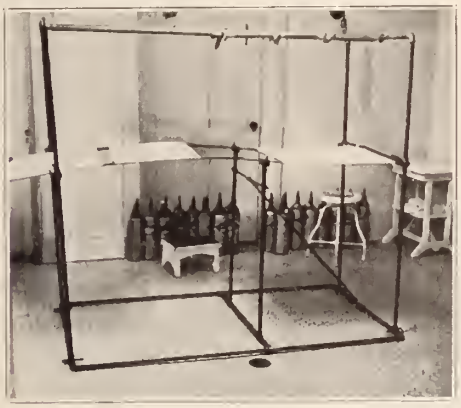


Fig. 1

Fig. 1 is the skeletal bed, with its flexible Bradford frame placed across a fixed cross rod or yoke. This yoke acts as a fulcrum, and allows the frame with the ends raised to become concave, or lowered to become convex. The more convexity produced, the more hyperextended becomes the spine. This frame is made of the best quality chrome vanadium spring steel, with the broad-side horizontal bands (3/16 by 1 1/4 inches) adjustable in width from 18 to 24 inches and 7 feet long. The heaviest duck or canvas strips are secured tightly between the sides of the frame to prevent sagging.

Fig. 2 illustrates the flexible frame rendered convex to produce hyperextension of the spine. The four-inch square webbing with six one-inch webbing straps, three on each side, are adjustable to the overhead frame, allowing suspension while the spine is maintained in hyperextension. The Goldthwaite adjustable irons are then placed underneath the patient's spine from the mid-sacrum to the mid-dorsal region, after the middle canvas strips and the blankets have been released.

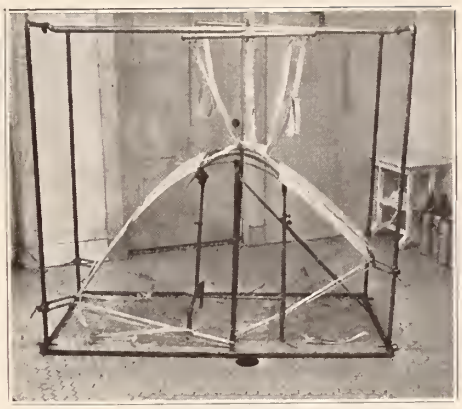


Fig. 2

Fig. 3 shows the patient with the spine deformity completely corrected. Note the upward convexity. This patient weighed 205 pounds. His head is kept horizontal, banked with pillows to insure comfort and cooperation, which does not interfere with the extension of the dorso-lumbar spine. Underneath him is a mattress of blankets. Saddler's felt is encircled around the torso and held securely with strips of adhesive.



Fig. 3

The patient's lower extremities are left exposed, so that the reflexes can be checked. Voluntary muscle action is also carefully watched for early paralysis or any other manifestations of impending cord injury or irritation.

Extension is carried out slowly and gradually. Complete correction is accomplished before the patient is suspended, and the Goldthwaite irons adjusted.

Fig. 4 reveals the completed hyperextension plaster jacket, partially trimmed, before the patient is lifted from the frame to be placed upon a stretcher. He is suspended on the Goldthwaite

irons which are encased in the plaster. They will be released when the patient is lifted and thus withdrawn from the jacket. If desirable, lateral roentgenograms to determine the correction can be taken before he is removed. However, this is not necessary at this time.



Fig. 4

Mechanics of Reduction

Schmorl's[14] most noteworthy contribution has taught us the complexity of the normal and the pathological mechanics of the spine, and the importance of the nucleus pulposus. This nucleus is the most important part of the intervertebral disc, and plays an outstanding role in its pathological mechanism.

Rogers[12, 13] believes that the nucleus acts as a fulcrum between the vertebral bodies, altering its shape, and shifting its point of contact with each change in the position of the body. He states that if it is possible to assume that there is a single axis of motion between the vertebrae, it would fall through the concavity of the articulating surface of the centrum opposite the nucleus. Since decompression does occur in the vertebrae as the spine is extended, it is possible to reduce compression fractures. Fractures which occur near the nucleus are not always corrected by extension, while those anteriorly in the zone of decompression can be completely disimpacted and restored to their pre-fracture dimensions. In some cases the nucleus is destroyed to different degrees, from complete disorganization to partial alteration, while in others there is no involvement at all. When extensive disorganization occurs, the axis of motion is shifted and falls posteriorly during hyperextension.

Davis[7] points out that the extension method does not depart from the general principles of treating fractured spines, but that it realizes its application to the particular part involved, and takes cognizance of the fact that spinal anatomy and physiology require a different method of application of the general principles than do the long bones.

The correcting force is that of gravity by means of extension. It is diffused along the entire spine and not concentrated at any one point. The bodies of the vertebrae lock posteriorly by their bony processes. Hyperextension has to be carried beyond the physiological extension. After the spinal joints above and below have become locked, then correction begins. Failure in correction is due to the fact that hyperextension has not been carried beyond this physiological limit of extension. The uncorrected vertebral fracture changes the mechanics so that the dorsal spine is flexed forward and in order for the patient to stand erect he has to increase his lumbar lordosis.

The possibility of injury to the cord is always to be borne in mind by the attending surgeon. However, the occurrence of such injury is unlikely because of the strong anterior longitudinal ligament in front, and the contacting bony articular facets which lock behind and give additional stability. In the fracture dislocations the nucleus is usually destroyed beyond recognition. When fracture of the articulating processes occurs during extension, inevitable injury to the cord results.

The procedure of the reduction takes twenty to forty minutes and requires no anaesthesia. Scopolamine and morphine analgesic are administered. The patient is always conscious and is not uncomfortable during the gradual extension. He is aware only of a feeling of tension in the abdominal muscles, which is a warning that extension is approaching completion.

The estimation of the limit of extensibility is based upon the surgeon's skill and experience. It varies with many factors, namely: the age of the patient, the proliferative changes in the spine, the type and build of the individual, the previous postural mechanics of the spine, and the patient's reaction to the procedure. All of these are of equal importance and deserve due consideration.

Grouping of Cases

These cases have been divided into three groups for analysis, depending upon the type and

the extent of the fracture. Since it does not seem expedient to show the roentgenograms in all of the cases, reproductions of typical cases for each of the groups have been selected. Other selected reproductions are shown to emphasize some of the complications encountered. A study of the tables will disclose detailed information in this method of treatment.

Group 1 — Mild Fractures

Listed in this group are those fractures in which the fracture line is through the centrum of the vertebral body. There is no narrowing of the intervertebral space. There is very mild or absent fragmentation of the articular surface. Apparently the intervertebral disc is intact. The amount of compression varies from 1/4 to 1/2 in wedging or loss of the anterior vertical diameter or height. These fractures are mild.



Fig. 5. Roentgenograms illustrating Group 1, Case 1: 1 - before reduction; 2 - after reduction; 3 - one year; 4 - appearance after two years.

In this case the fracture line extends through the centrum, there is no loss in the intervertebral space, and no involvement of the articular surface. There is 1/3 loss in the anterior vertical height of the body. Therapy consisted of reduction on the Rogers Bed, ambulatory treatment in a plaster jacket, and finally a Taylor steel back brace.

Figure 5 shows the roentgenograms of M.D., Hartford Hospital No. 297081, a 27-year-old housewife who received a compression fracture of the first lumbar vertebra, by being knocked to the ground, falling in a sitting position with the spine hyperflexed. Admitted to the hospital November 20, 1934, fourteen days after the injury. Essentially no neurological signs were present. Reduction was done on the second day after admission, obtaining complete correction. She was recumbent in her plaster jacket for three days, ambulatory for five days, and discharged from the hospital on the tenth day. The ambulatory jacket was worn for six months, and the Taylor back brace for six months. Returned to pre-injury activities in three weeks. She has no back symptoms over a period of two years.

Table 1

Group 1 — 4 Cases or 30% of the Series

Ages 17-53 Vertebrae Involved D-11 to L-3	
Wedging 1/4 to 1'2	
Superior Articular Surface Involved in	2
Partial Correction in	1
Almost Complete or Complete in	3
Moderate Arthritis in	1
Average Days Reduced Post-Injury	9
Average Days Recumbent in Jacket	9
Average Hospital Days	20
Average Time Return to Pre-Injury Activities	4 Weeks

Group 2 — Moderate Fractures

These fractures involve the superior or the inferior articulating surface. The adjacent intervertebral space may or may not be narrowed. When disorganization of the disc and the vertebral surface is extensive, there is inevitable destruction of the nucleus pulposus. The amount of compression varies from 1/3 to 1/2 in wedging or loss of the anterior vertical height. These fractures are more severe and comprise the greatest number.

A — Inferior Articular Surface

In this case the fracture extends into and involves the inferior articular surface. There is slight narrowing of the intervertebral space. There is loss of 1/3 of the anterior vertical

height. There is some disorganization of the intervertebral disc, hence involvement of the nucleus pulposus. An apparent nuclear prolapse

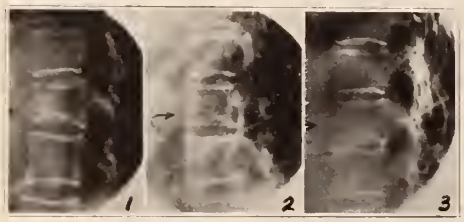


Fig. 6. Roentgenograms illustrating Group 2, Case 7: 1 - before reduction; 2 - after reduction; 3 - appearance after six months.

is evident in six months, as shown in Roentgenogram No. 3. Therapy consisted of reduction on the Rogers Bed, ambulatory treatment in a plaster jacket, and finally a Taylor steel back brace.

Fig. 6 shows the roentgenograms of A.P., Hartford Hospital No. 307293, a 61-year-old stenographer, slightly obese, who in trying to avoid stepping on her cat, slipped on the wet linoleum in her kitchen and fell to the floor in a sitting position, hyperflexing her spine. She sustained a compression fracture of the 12th dorsal vertebra. She had been treated for several months for combined system disease. Admitted to the hospital July 31, 1935, four days after injury. Reduction was done on the second day after admission, obtaining almost complete correction. She was recumbent in her plaster jacket for four days, ambulatory for fourteen days, and discharged from the hospital in twenty-one days. She had some neurological signs referrable to her chronic disease and a moderately advanced osteoarthritis of the spine. Returned to pre-injury activities in eight weeks. The ambulatory jacket was worn for six months, and the Taylor back brace for six months. She has no back symptoms. Recently she has had an acute cholecystectomy followed by a prolonged stormy convalescence. The spine gave no untoward symptoms.

B — Superior Articular Surface

In this case the fracture extends into and involves the superior articular surface. There is essentially no narrowing of the intervertebral space. There is loss of 1/3 of the anterior vertical height. There is partial alteration of the intervertebral disc. Therapy consisted of reduction on the Rogers Bed, ambulatory treatment in a plaster jacket, and finally a Taylor steel back brace.



Fig. 7. Roentgenograms illustrating Group 2, Case 8: 1 - before reduction; 2 - after reduction; 3 - six months; 4 - appearance after one year.

Fig. 7 shows the roentgenograms of I.B., Hartford Hospital No. 310051, a 27-year-old insurance girl, who was thrown from a horse and dragged along the ground for twenty feet. She landed in a sitting position hyperflexing her spine, receiving a compression fracture of the 1st lumbar vertebra. She had been under her physician's care for several months because of a gastrointestinal disorder. Admitted to the hospital October 4, 1935, twenty-two days after injury. Reduction was done on the second day after admission, obtaining complete correction. This is quite remarkable as a lapse of three weeks occurred before the reduction. She was recumbent in her plaster jacket for four days, ambulatory for eleven days, and discharged from the hospital in seventeen days. She had no neurological signs. She could have returned to pre-injury activities in eight weeks; however, her position was such that the insurance company gave her a six months leave of absence. The ambulatory jacket was worn for six months, and the Taylor back brace for six months. During

her period of immobilization the symptoms of gastritis entirely disappeared. She has no back symptoms.

Table 2

Group 2 — 7 Cases or 53% of the Series

Ages 27-61 Vertebrae Involved D-11 to L-3	
Wedging 1/3 to 1/2	
Superior Articular Surface Involved in	6
Inferior	1
Complete Correction in	4
Complete in	3
Mild Arthiritis in	2
Extensive (Lipping and Bridging) in	3
Average Days Reduced Post-Injury	9
Average Days Recumbent in Jacket	8
Average Hospital Days	23
Average Time Return to Pre-Injury Activities	6 Weeks

Group 3 — Severe Fractures

These are fractures in which the deformity and the compression are central. The articular surfaces of the vertebrae are saucer-shaped. The narrowing of the intervertebral space may be restored. Reduction of the vertebra may not always be accomplished. The amount of compression is usually 2/3 wedging or loss of the anterior vertical height. These fractures are the most severe of the three groups. There is inevitable destruction of the intervertebral disc, as extensive disorganization is almost always present.

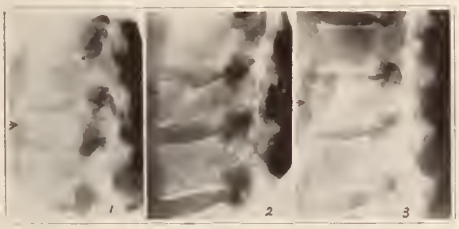


Fig. 8. Roentgenograms illustrating Group 3, Case 13: 1 - before reduction; 2 - after reduction; 3 - appearance after six months.

In this case the fracture and compression are central. Both of the vertebral articular surfaces are saucerized. The intervertebral space is narrowed superiorly. There is a loss of 2/3 of the anterior vertical height. There is involvement of the intervertebral disc. The fate of the nucleus pulposus is unknown at this time. The fracture caused more extensive involvement of the superior than the inferior articulating surface. Therapy consisted of reduction on the Rogers Bed, ambulatory treatment in a plaster jacket, and finally a Taylor steel back brace.

Fig. 8 shows the roentgenograms of M.O., Municipal Hospital No. 34769, a 41-year-old janitor. He is quite robust, weighing 170 pounds. In attempting to repair his radio aerial on the roof of a three-story building, he fell to the ground, landing on his feet and jackknifing his body, thus sustaining a compression fracture of the 1st lumbar vertebra. He had no complications. He was admitted to the hospital February 8, 1936, the day of injury. Reduction was done on the second day after injury, obtaining almost complete correction. He was recumbent in his plaster jacket sixteen days, ambulatory for ten days, and discharged from the hospital in twenty-eight days. There were no neurological signs. He returned to his janitorial duties in seven weeks. However, this could have been reduced to five, had it not been for the flood in March which delayed his return. The ambulatory jacket was worn for six months, and he is still wearing his Taylor steel back brace. He has no symptoms.

Table 3

Group 3 — 2 Cases or 15% of the Series

Ages 41-62 Vertebrae Involved L-1 and 3	
Wedging 2/3	
Superior and Inferior Articular Surfaces Involved in	2
Complete Correction in	1
Almost Complete in	1
Slight Arthritis in	1
Moderate (Lipping) in	1
Average Days Reduced Post-Injury	3
Average Days Recumbent in Jacket	13
Average Hospital Days	24
Average Time Return to Pre-Injury Activities	7 Weeks

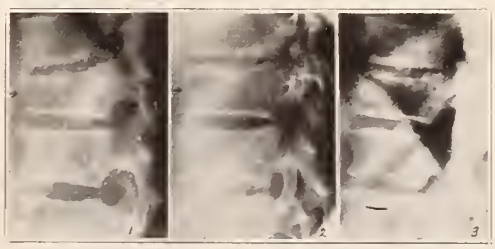


Fig. 9. Roentgenograms illustrating Group 2, Case 9: 1 - before reduction; 2 - after reduction; 3 - appearance after six months.

Complications

This is the roentgenological study of the patient who is shown in Fig. 3 and 4. He was admitted to the Hartford Hospital March 30, 1936, record No. 317184. He is a master mechanic and weighs 205 pounds. This is the one case in the series, who not only sustained a compression fracture of the 11th dorsal and an oblique fracture of the spinous process of the 12th, but also a bilateral impacted fracture of the laminae of the 11th dorsal vertebra. Extreme care had to be exerted in his reduction which took fifty minutes instead of the usual twenty, as cord irritation or damage was imminent.

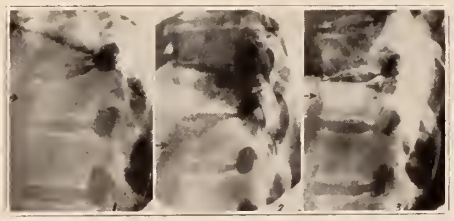


Fig. 10. Roentgenograms illustrating Group 2, Case 10: 1 - before reduction; 2 - after reduction; 3 - after six months and two weeks, showing complete loss of the intervertebral space.

This reveals a complete loss of the intervertebral space two weeks after the application of the Taylor back brace. This patient (Hartford Hospital No. 317780) decided that a new corset would substitute for her brace and be as effective in its purpose. The results are shown in the roentgenograms Fig. 10, No. 3. While this might have been inevitable even in the Taylor brace, it has not occurred in any of the other cases.

This was one of the central compression type which was reduced completely, as shown in Fig. 11, No. 2. At the end of five weeks the loss in the anterior vertical height, or "settling", was apparent. The patient, Hartford Hospital No. 284943, had lost weight which caused "shucking" in her jacket. A new plaster jacket which was advised was refused by the patient.

Method of Fixation

When the surgeon has decided that the case in question can be treated by the ambulatory method, the following routine is carried out. The hyperextension plaster jacket is applied and worn for a period of six months. This is replaced by a long steel Taylor back brace (Fig. 13) for the ensuing six months, thereby totaling a period of one year of fixation.

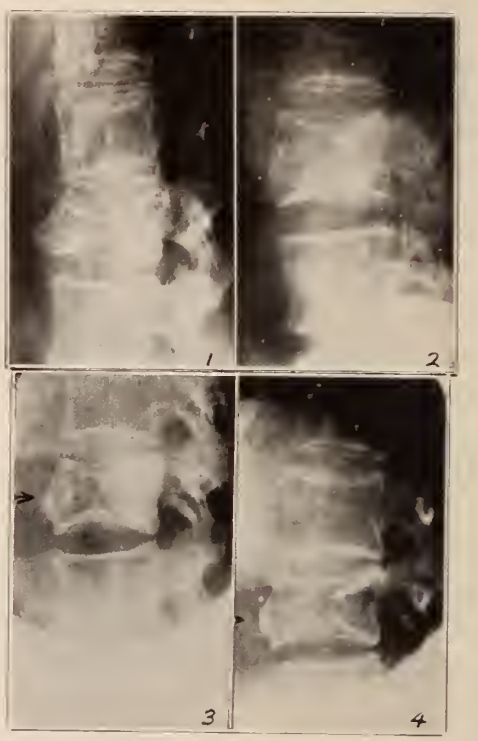


Fig. 11. Roentgenograms illustrating Group 3; Case 12: 1 - before reduction; 2 - after reduction; 3 - in five weeks showing loss of correction of the vertebra in the jacket; 4 - appearance after six months still showing loss of 1/3 of her correction due to loss in weight.

The cases best suited for the ambulatory treatment in the plaster jacket depend primarily on the location of the fracture and occasionally on the type of individual. The fracture must occur in the normal lumbar convexity of the spine, so that the superincumbent weight will fall on the posterior aspect of the bodies of the vertebrae, and the posterior bony processes. The normal mechanics of the spine have individual differences, thus varying the extent of the lumbar convexities. In many spines the convex curve begins at the 11th dorsal vertebra; in some it extends to the 10th, while in others, the exception it reaches as high as the 8th and the 9th, and extends down to the 4th and 5th lumbar vertebrae.

Fractures which occur in the upper dorsal spine or the dorsal concavity obviously cannot be treated in the ambulatory hyperextension plaster jacket alone. For the very obese individual there is no apparatus of fixation which

will maintain hyperextension, and prevent the weight from falling on the anterior aspect of the vertebral bodies; therefore, the method is not always applicable to this type. The patient is watched very closely for any loss in weight, which would permit the jacket to become loose or to "shuck", thereby allowing flexion and loss in the correction.

The apparatus used for fixation must maintain hyperextension or the deformity will recur. The correction must be preserved until reorganization is adequate and complete. The structure of the vertebrae is spongy or porous which yields to early settling, if the proper precautions are not taken.

Application of the Plaster Jacket

The patient's torso is fitted with the proper size stockinette, over which is encircled 1/4 inch felt fitted smoothly and held in place with adhesive strips (Fig. 3). A long strip of 1/2 inch saddler's felt is placed longitudinally along the spinous processes. The Goldthwaite irons are adjusted to fit the hyperextended spine, then the suspended canvas square is removed, and the circular plaster jacket is applied. This extends to the supra-sternal notch above and to the symphysis below to incorporate the anterior superior spines of the ilia. Posteriorly it extends from the mid-sacrum to the inferior angles of the scapulae, fitting snugly into the lumbar hyperlordosis. The resistance against the anterior chest wall and the pelvis, also the snug fit to the lumbar spine, maintains the desired position.



Fig. 12

The first picture in Fig. 12 shows the lateral view of the plaster jacket; the second shows the same amount of hyperextension maintained after the removal of the jacket at the end of six months; the third shows the Taylor back brace properly fitted to retain extreme lordosis.

Fig. 13 illustrates the front, back and side views of the long Taylor steel back brace which is worn for six months. This is Case 8, roentgenograms of which are shown in Fig. 7.

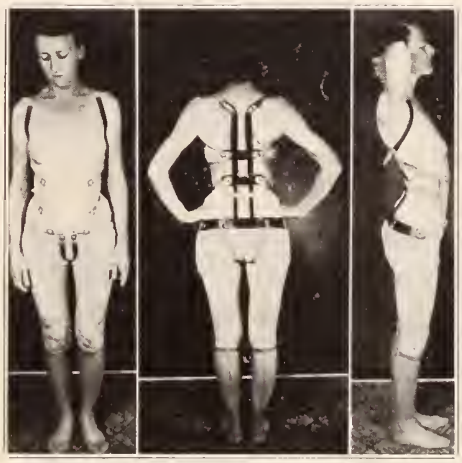


Fig. 13. Taylor Back Brace

Corrective Exercises

Orthopedic surgeons fully appreciate the value and importance of corrective exercises to improve the function of any part of the skeleton. Apparatus of any kind used in fixation performs only a small portion of the task without the major influence of the exercises to promote the normal anatomical, economical and functional restoration of activity. Wallaces has very definitely shown what can be accomplished by corrective exercises to improve the body mechanics in old cases of compression fractures of the spine, by developing compensatory curves above and below the kyphos. Osgood[16] has stressed the importance of postural correction, rather than ankylosis, to insure freedom from pain and disability.

Exercises are started as early as the first week in the plaster jacket and continued throughout the entire period of treatment. These stress the



Fig. 14. The hyperextension exercises

normal back mechanics, with especial reference to lumbar flexion and extension. After the removal of the brace they are vigorously continued, because the end results are just beginning to appear. The deep lumbar lordotic curve has to be fully corrected to its original state of postural mechanics before the case can be considered recovered and active treatment discontinued. This will vary with the individual and the cooperation obtained. Pelvic control and balance, spinal mobility, and the normal back mechanics all receive due consideration in carrying out this treatment.

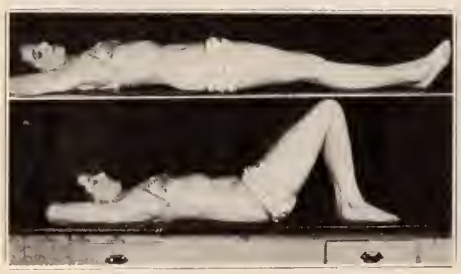


Fig. 15

Fig. 15 illustrates the return to the normal mechanics three weeks after the removal of the brace. The upper photo shows the end of a white pencil placed under the lumbar lordosis with the patient supine. The lower one shows the lumbar spine normally contacting the flat surface of the table throughout its entirety, with the hips and knees flexed. The lumbar lordosis is fully corrected.

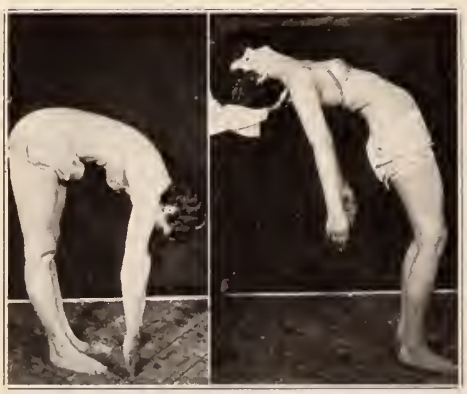


Fig. 16. Flexion and Extension of Spine

Fig. 16 illustrates the end results in spinal mobility four weeks after the brace is discarded. The picture on the left demonstrates the normal flexion of the spine, the one on the right normal extension. This is Case 1. Roentgenograms are shown in Fig. 5.

Griffiths[23] states that neurasthenia develops in patients who know they have broken backs. This unfortunate complication can occur, but it has not in this small number of cases. The practice of explaining to the patient the seriousness of the fracture, as well as its true nature, is condemned by some, while others deem it advisable. It has been my experience that it is best to inform them of the true nature of the injury, the extent of the treatment, what is to be expected of them, the prognosis, and the utmost importance of their cooperation. Each patient was impressed with the fact that the surgeon alone cannot perform miracles, and that the end result was as dependent upon his own ability to follow instructions implicitly, as it was upon the responsibility of the surgeon to reduce the fracture and to guide him intelligently through the many months of treatment. With this intelligent group of patients there was no difficulty in converting them to the method or inspiring their confidence. Industrial accident complications were so few as not to produce any perplexities.

Fusions

There are many divergent opinions relative to spinal fusions in the treatment of these fractures. Those who advocate it show some good results, while others believe it is not advisable. If the compressions are reduced, and the deformities eliminated, spinal fusions should not be necessary. In the old, unrecognized cases with faulty mechanics, spinal fusions usually relieve local symptoms of pain at the site of fracture, but do not always relieve the distressing symptoms of muscle and ligamentous strain or the pain along the peripheral nerve segments, probably the most common causes of disability. Fracture dislocations, the most severe of all types, have to be treated as individual problems. In this group spinal fusions and laminectomies play their most important role. Since none were treated in this study, further discussion has been purposely omitted.

Disability

The previously prolonged fixations with casts, braces, belts, Bradford frames or recumbency, in the hope of obtaining bony unions regardless of the deformities, as stated by Thomas[15], probably explain the exceedingly high percentage of

TABLE 4
Study of the Series

	Pt.	Age	Sex	Date of Reduction	Occupation	Cause of injury	Vertebra Involved	Correction Obtained
Group 1								
1	M.D.	27	F	11/20/34	Housewife	Fall to ground	L-1	Complete
2	*C.J.	53	M	7/15/35	Electrician	Fall from staging	L-2	Almost Complete
3	*V.K.	17	F	10/ 7/35	Housework	Fall from 3d story	D-11 and 3	Complete
4	*G.C.	50	M	10/30/35	Sheet-metal Worker	Fall from roof	D-12, L-1	Partial
Group 2								
5	R.P.	37	F	1/26/35	Housewife	Tobogganning	L-1	Complete
6	*V.D.	40	M	6/24/35	Engineer	Fall from roof	L-3	Almost Complete
7	A.P.	61	F	8/ 2/35	Typist	Fall to floor	D-12	Almost Complete
8	IB.	27	F	10/ 5/35	Insurance	Fall from horse	L-1	Complete
9	J.K.	51	M	4/ 1/36	Master Mechanic	Fall from roof	D-11 Laminae bil.	Almost Complete
10	*M.Z.	51	F	4/22/36	Housewife	Fall from roof	D-12	Complete
11	J.R.	37	M	10/12/36	Filling-station attendant	Fall from ladder	L-1	Complete
Group 3								
12	L.T.	62	F	1/26/34	None	Fall to sidewalk	L-3	Complete
13	*M.O.	41	M	2/10/36	Janitor	Fall from roof	L-1	Almost Complete

*Ward Cases

TABLE 5
Further Study of the Series

	Pt.	Age	Sex	Degree of Wedging	Osteo-Arthritis of Spine	No. of days Reduced Post-Injury	No. of days Recumbent in Plaster Jacket	No. of days Ambulatory before Discharge	No. of Hospital Days
Group 1									
1	M.D.	27	F	1/3	—	14	3	5	10
2	C.J.	53	M	1/2	Mild	5	22	9	37
3	V.K.	17	F	1/4	—	11	6	6	22
4	G.C.	50	M	1/4	Moderate	8	8	2	12
Group 2									
5	R.P.	37	F	1/2	Mild	7	3	4	7
6	V.D.	40	M	1/2	Extensive	7	8	7	23
7	A. P.	61	F	1/3	Advanced	5	4	14	21
8	I.B.	27	F	1/3	—	22	2	11	17
9	J.K.	51	M	1/2	Extensive	11	14	3	21
10	M.Z.	51	F	1/2	Mild	9	8	29	44
11	J.R.	37	M	1/3	—	5	21	7	32
Group 3									
12	L.T.	62	F	*2/3	Extensive	3	10	10	21
13	M.O.	41	M	*2/3	Mild	2	16	10	29

*Saucerization

disabilities in these injuries. The nerve root pain and symptoms of a weak or lame back produce the type of back, which, months later, comes to a fusion which not always successfully brings relief. It is astounding what the following authors report regarding disability. Geist, says, "The average disability in a review of seventy-four old cases is 50-75%". Thomas[15] states that 55% were permanently disabled and the average disability was 50%. His series of forty-six cases were all industrial accidents. He also states[20] that Keseler on medico-legal aspects of workmen's compensation gives 50% as the average permanent disability. In seventy-five industrial patients of Eikenbary's not more than five were able to return to hard labor

Griffiths[25] in his prognosis in one hundred cases reports the average period of incapacity exceeds two years, and only 11% return to their pre-accident work. These figures give one a good interpretation of the seriousness of these fractures and the appalling high disability ratings. Consequently any form of treatment which can lower the disability time and rating should receive serious consideration. Dunlop[5] has remarked "that the Industrial Commission Boards should result in a fair award instead of high permanent disability ratings which have been the rule during recent years." In ten cases, or 83% of this series, there is no disability at the present time. Two cases, or 17%, have stiffness with backache. In one the follow-up treatment was carried on elsewhere. Eleven of the patients are back at their pre-injury activities.

Table 5

General Summary

Age Incidence	Sex	Vertebrae Involved
11-20..... 1		D-11..... 2
21-30..... 2		D-12..... 3
31-40..... 2	Females..... 7	L-1..... 6
41-50..... 2		L-2..... 2
51-60..... 4	Males..... 6	L-3..... 3
61-70..... 2		
Total — 13		

Complete or Almost Complete Corrections in 12 or 92%.
Failure in Correction, None.
Loss in Correction (Settling), 1 or 7%.
Arthritis (Spurring, Lipping, L-S Changes), 9 or 69%.
Spinal Fusions, None.
Apparent Nuclear Prolapse, 4 or 30%.

Average Time of Reduction Post-Injury, 8 days.
Average Time of Recumbency in Jacket, 9 days.
Average Time Ambulatory Before Discharge, 9 days.
Average Number of Hospital Days, 22.7 days.
Average Time Return Pre-Injury Activities, 6 weeks.

Disability:
No Symptoms present in 10 or 83%.
Symptoms (Stiffness, Backache, Pain) in 2 or 17%.

Summary and Conclusions

1. This is a study of thirteen cases of compression fractures of the spine, treated by the Rogers method.
2. Complete reduction of recent compression fractures of the spine can be accomplished if adequate hyperextension is used, and if the procedure is done early.
3. Normal restoration in alignment and contour of the spine is essential if full function is to be expected.
4. Time of fixation and method employed varies with the experience of the operator, and the type of case being treated.
5. Many different methods of hyperextension are now utilized, each depending on the skill of the surgeon, and his familiarity with its use.
6. Hospitalization is definitely shortened.
7. Importance of the exercises cannot be stressed too emphatically.
8. Industrial cases are returned to work early and disability is greatly reduced.

I wish to express my appreciation to Dr. S. H. McPherson, Dr. J. H. T. Sweet, Dr. M. M. Pike and Dr. R. G. Reynolds for their cooperation and assistance; to Dr. D. J. Roberts and Dr. R. T. Ogden for their review and suggestions in the roentgenological studies; to Burton E. Moore, and to the Hartford Hospital Photographic Department for the photography.

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NOTE—On page 165, Table 2, Group 2, the sixth line should read "almost complete in 3", instead of "complete in".
On page 169, Table 4, Group 1, No. 3 should read under Vertebra Involved "D-11, L-2 and 3", instead of "D-11 and 3".

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REPORT OF HEALTH SECURITY ADMINISTRATION DISTRICT OF COLUMBIA

This has been erroneously termed the Washington Plan. Its Central Admitting Bureau for Hospitals, Inc., has been in operation since January 1, 1935. In 21 months it has enabled 22,757 underprivileged sick individuals to secure hospitalization with the aid of funds set aside for this purpose by the Community Chest of Washington, D. C. During the 21 months of its existence it has issued 122,869 passes to applicants who desired medical attention in the out-patient departments of hospitals affiliated with the Community Chest.

The Medical Dental Service Bureau, Inc., began to function on March 1, 1935. In 19 months it has interviewed 2,032 persons seeking aid through its auspices and has accepted 1,714 accounts. About 50 per cent of these people were referred by physicians and about 16 per cent by hospitals. In these same 19 months this Bureau handled 4,720 accounts for the Central Admitting Bureau for Hospitals.

The total business placed on the books of the Medical Dental Service Bureau in its first 19 months was $313,166.97. During the same period the Bureau collected $213,834.39. Its expenses were almost $3,000 in excess of its income, a deficit contracted chiefly at the onset when much time was consumed in getting under way. It is now showing a profit. During the 19 months of the Bureau's existence 39.5 per cent of the members of the dental societies made use of the Bureau.

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THE CENTENNIAL OF THE UNIVERSITY OF LOUISVILLE MEDICAL SCHOOL

The University of Louisville Medical School is the second oldest Medical School now in existence west of the Alleghaneys and the oldest Municipal Medical College in the United States. It celebrates its Centennial March 31st to April 3rd, 1937 at Louisville, Kentucky.

The Alumni are urged to make their plans now to attend their alma mater and participate in the celebrations. There is an unexcelled clinical program by outstanding guest speakers. Ward rounds daily at the Hospital and lectures in the forenoon and afternoon. There will be numerous scientific exhibits in the various departments of the University. For the visiting ladies unusually interesting entertainment has been provided. There will be motor trips through the beautiful local parks and to the famous bluegrass region. The historic Old Kentucky Home at Bardstown and Lincoln Memorial at Hodgenville are also included in the itinerary. Mammoth Cave is within easy motoring distance for those who wish to visit this natural wonder. Lexington and the famous race horse stables are but a short distance from Louisville and in the heart of the bluegrass region.

Clinical Aspects of Thyroid Disease*

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Clifton Springs, N. Y.

The opening paragraphs of Dr. Halsted's memorable monograph "The Operative Story of Goitre"[1] are as follows:

"The extirpation of the thyroid gland for goitre typifies, perhaps better than any operation, the supreme triumph of the surgeon's art. A feat which today can be accomplished by any really competent operator without danger of mishap and which was conceived more than one thousand years ago might appear an unlikely competitor for a place in surgery so exalted."

"For thousands of years, probably, goitre has been a familiar malady. An unsightly and frequently fatal disease. it was accepted as an inoperable affliction or dispensation of Providence in communities where it prevailed, and paraded the streets exciting the curiosity of the populace in towns where it was unusual. The sufferers sought relief from suffocation, difficulty in swallowing, failure of the heart and from a distressing disfigurement. Thus this conspicuous tumor of the neck was a perpetual challenge to the physician, and to the surgeon a stigma as well."

Not many years ago there were few skilled in goitre surgery and several of the great general medical and surgical clinics of this country have been built upon the work of a few expert goitre surgeons. Today, however, as Dr. Halsted wrote more than a decade ago, every well-trained general surgeon is equipped to do thyroid surgery, and shares with his medical colleagues great interest in it. The selection by your program committee of the subject for this paper is further evidence of widespread recognition of the importance of thyroid disease.

The thyroid gland is perhaps the chief of the ductless glands which compose the closely interrelated endocrine system. It is shaped like a dumb-bell, and lies with its isthymus across the trachea, and its two lateral lobes in close relation to the structures in either side of the neck. The recurrent laryngeal nerves run upward in the groove between the esophagus and trachea and lie in close approximation to the posterior capsule of the gland, while the parathyroid glandules lie closely attached to the capsule or even buried in the parenchyma of the lateral lobes. The blood supply of the gland is derived from the subclavian and external carotid through the inferior and superior thyroid arteries. It is so abundant that the entire blood volume of the body passes through the gland sixteen times a day. The true innervation comes from the sympathetic nervous system by way of the cervical ganglia, while a few fibres are derived from the superior and inferior laryngeal nerves. The fundamental anatomical unit of the gland is the acinus, which is seen in cross section as a rounded space filled with colloid material and lined with a single layer of low cuboidal epithelium. In the normal gland the cellular activity results in the storing of the active principle in the acinal spaces, to be regularly poured into the blood stream by what is perhaps a reversible mechanism. Severinghaus[2] has described in detail this process. Hyperactivity is frequently accompanied by hyperplasia, which consists essentially of the increase in the size and in the number of the cells with a resulting diminution in the size of the central spaces of the acini and the amount of the contained colloid, and there is definite cytological evidence to show that in this state the gland is able far better to "pour" its secretion into the blood stream than to "store" it in the acinal spaces. It is believed that metabolism is regulated by the thyroid, that deficient activity results in cretinism or myxedema, and that excessive or abnormal activity produces the clinical syndrome known as hyperthyroidism.

For the purposes of this paper the clinical aspects of thyroid disease will be discussed under the following heads:

1. Injuries, infections and inflammations.

*Presented before the Connecticut State Society, Hartford, May 20-21, 1936.

2. Malignant disease.
3. Hypothyroidism.
4. Simple and nodular goitre.
5. Exophthalmic goitre.
6. The role of iodine.
7. Treatment.

1. Injury is not common and presents simply the well known problems of control of hemorrhage and prevention of infection. Spontaneous hematoma has been observed twice by the essayist. The resulting hard globular masses were slowly absorbed. Frank pyogenic abcesses, tuberculous, gonococcal and syphilitic infections are occasionally found. Riedel's struma, woody or liqueous thyroiditis, is a chronic inflammatory process. Here pre-operative diagnosis of carcinoma is frequently made, and the impossibility of ruling out malignancy makes operative exploration wise. In about one-fifth of the reported cases the metabolic rate was low and symptoms of myxedema were present. The gland becomes enlarged and may cause pressure which also demands operative decompression. Resection of the gland is conservatively done, there may be post operative regeneration of the remaining parenchyma, but thyroid feeding is frequently necessary.

2. Malignant disease frequently selects the thyroid. Epithelial neoplasms as malignant adenomas, papillary adenocarcinomas, and diffuse carcinomas in the gland make up almost all of these new growths. The occurrence of sarcoma of the thyroid is disputed, but such a diagnosis was recently made by us in a case in which a large tumor was removed. Pessimistic nihilism has long been the attitude in reference to thyroid malignancy, but recent reports remove any doubt that the condition is curable. In one case personally seen in China, reported by Meleney[3], an adenocarcinoma of the thyroid with invasion of the adjacent muscles and with widespread cervical gland metastases was radically removed and post-operative radiation was employed. The patient was observed for five years. The metabolic rate, which was high, fell after operation and radiation far below normal, but the administration of thyroid kept the patient in satisfactory condition.

3. Hypothyroidism is seen in myxedema which may occur after operation or idiopathically in adults, or may be congenital or acquired in infancy. The clinical picture of hypothyroidism is exactly opposite to that of hyperthyroidism. Fifty years ago Kocher[4] pointed out the contrasts. In myxedema the gland is atrophied or absent; the pulse is slow, small and regular; the expression is quiet and apathetic; digestion is slow and constipation is common; metabolism is low; the skin is thick, wrinkled and dry; the fingers are short and thick and broad; the patients are drowsy and sleep soundly; the sensorium is dulled; clumsiness and stiffness of the extremities are common; bony growth is retarded, and the bones become short, thick and deformed; there is constant feeling of cold; respiration is slow and deep; body weight increases; and the patients have a senile appearance even in youth. Graves' disease presents the exact antithesis of all of this. The cause of congenital myxedema, or cretinism is not known. It is certain, however, that thyroid deficiency is only a part of a complicated picture, and it is well known that thyroid feeding does not cause the striking improvement that is sometimes seen in other forms of thyroid deficiency. Symptoms of myxedema are sometimes seen in cases of hyperthyroidism indicating perhaps a lack of normal thyroid function in the presence of definite pathological activity.

4. Enlargements of the thyroid gland are known in general as goitre. Simple or endemic goitre is defined by Rienhoff[5] as a morbid enlargement of the gland, which occurs sporadically, epidemically or most commonly endemically, and he points out that hyperthyroidism is entirely separate and distinct from simple goitre but can be engrafted upon any type of pre-existing thyroid gland, normal or abnormal. This type of simple goitre may occur sporadically anywhere, but has been found in well defined goitrous regions which are of geologically ancient origin and which have been subjected to glacial leaching which has exhausted or diminished the iodine content of soil and water. While there are doubtless many as yet unknown factors in the etiology of simple or endemic goitre, the important role of iodine — or rather the lack of it — is accepted. In periods of stress, such as during puberty, in certain individuals of these goitrous regions, diffuse enlargement of the gland occurs, and later as a result of processes of involution in certain cases, parenchymatous

nodules are formed, and the so called adenomatous or nodular goitres develop. Cystic cavitations with or without calcification may form part of tremendous tumor masses which becomes strikingly disfiguring and seriously obstructive. The essential metabolic function of such glands may remain normal, be subnormal, or overactive or even disordered in bizarre pathological fashion.

5. It is now just a century since Sir Robert Graves described the condition in which palpitations and rapid pulse, hysteria like nervous symptoms, exophthalmos and enlargement of the thyroid gland were found. He pointed out that the enlargement of the gland seemed to be due to hypertrophy and called attention to the difference between it and simple goitre. Fifteen years later the same syndrome was described by Basedow whose name now shares the honor with Graves of association with exophthalmic goitre, which may be defined as a disease of unknown etiology in which the thyroid is abnormally active. The five cardial signs of the disease are enlargement of the gland, rapid pulse, tremor, exophthalmos, and elevation of the metabolic rate. The mechanism of the disease is perhaps to be found in the pathological effect of the thyroid upon the sympathetic nervous system, upon metabolism and upon other glands of the endocrine system. While the etiology is unknown it is clear that the disease is on the increase, and is particularly common in America. It is found most frequently in young and middle aged females, and heredity plays a role. Stress and strain are important factors, and symptoms often follow emotional crises, and the insults of acute and chronic infections.

6. No discussion of the clinical aspect of thyroid disease can omit consideration of the part iodine plays in the picture, and while much is yet to be learned the following facts are well substantiated.

(a) Simple and nodular goitres occur in definite regions where the iodine content of soil and water is low.

(b) Simple goitre may be largely prevented by the prophylactic use of iodine.

(c) The active principal of the thyroid is thyroxin which contains 65% of iodine.

(d) The normal thyroid gland contains about 2 mgm. of iodine per gram of dried gland.

(e) The hyperactive, hyperplastic gland may contain much less than this amount of iodine, even as low as 0.4 mgm. per gram of dried gland.

(f) Histological involution with improvement in clinical symptoms — which, however, is not permanent — often follows the administration of iodine in cases of hyperthyroidism.

(g) In cases of hyperthyroidism there is often found an increased amount of iodine in blood and urine associated by a decrease in the iodine in the gland.

(h) The normal gland is able to store its iodine-bearing active principle; the hyperactive gland is unable to store, but pours this substance into the blood stream. The administration of iodine, however, enables the gland, temporarily at least, to store its thyroxin, its iodine content rises, its architecture approaches the normal pattern again, and the blood iodine falls.

(i) Finally an iodine tolerance test is being developed which bids fair to become an accurate index of hyperthyroidism.

7. Treatment. Iodine will largely prevent simple and nodular goitre in endemic areas, while it will have little if any effect upon established goitres. Marine[6] years ago suggested that 2 gms. of iodide be given twice yearly to adolescent children, and he showed that by this simple means the incidence of goitre of this type could be enormously reduced. These goitres are rare in sea coast regions and among populations using iodine bearing natural sea salt. For instance, I have seen, personally, Chinese villages in the mountains of China, where the people use Gobi Desert salt, where practically every woman had an enormous goitre like some that I will show you in a moment; while among the people who live on the seacoast, where the Chinese use the natural sea salt, you will hardly ever see one of these large, spectacular goitres. The widespread use of iodized table salt is probably wise and harmless. There is certainly little evidence of injury done by iodine.

Simple, diffuse, soft colloid goitre requires no treatment, except perhaps the administration of iodine or of thyroid substance if the metabolic rate be low. If, however, the gland has become nodular, operation is strongly advocated, for the following reasons: It is almost certain to increase in size and may become disfiguring and mechanically obstructive. There is no other

way in which it may be removed. Iodine is not effective, and radiation therapy has not been successful. At the last, many of these patients so afflicted, become toxic, and their parenchymatous organs become permanently damaged. It is remarkable how long these large, nodular goitres may exist without the patient showing signs of toxicity. In one large series with which I am familiar, the average time the nodular goitres were present was fifteen years before symptoms of toxicity were observed. Finally malignancies develop in some cases, variously estimated at from two to nine per cent of all nodular goitres.

The risk of the present day operation in non-toxic cases should not exceed one-half of one per cent, the scar is non-conspicuous, the post-operative disability is short, and the chance for permanent cure without recurrence is perhaps ninety per cent. In cases of so called toxic adenomata, the risk is appreciably greater, and there is always the possibility of irreversible damage being done to vital organs. An interesting moot point concerns the pre-operative administration of iodine in these cases. Without going into the discussion, the personal opinion is expressed that it should be used. Because of the possibility of mixed types with hyperplasia, its use does seem wise. And in hyperplasia, we know that there is a very remarkable and beneficial pre-operative result seen after the use of iodine.

In exophthalmic goitre the pre-operative use of iodine is established. The clinical symptoms improve, the gland diminishes in size, becomes firmer, and at operation is found less friable and much easier to handle, its histological picture approaches normal, the iodine content of the gland rises, and the need for preliminary ligations or many staged operations becomes progressively less.

It must be pointed out that the period of maximum improvement is a short one, and that the patient may soon become iodine fast or refractory. Lahey[7] recently emphasized this point in the following words —"We have always urged upon physicians that if their patients are not to be operated upon, they may give them all the iodine they choose, but if they are to be operated upon that they be sent to the surgeon not having had iodine, in order that he may give it to them, observe the period of maximum improvement and operate upon them thus with greater safety at that time."

The solution to the problems which arise in exophthalmic goitre requires attention to the patient's environment, and to his psychical, mental and physical state, and cooperation between internist and surgeon is eminently wise. Great improvement is seen following rest, and a properly regulated regime, but the patient's best chance for permanent cure lies in proper surgical therapy applied at the proper time. Many indices of thyroid activity have been used for a while and then discarded. Determinations of the metabolic rate before and after administration of iodine during a period of rest, with an evaluation of the clinical picture during this period furnishes the best means of estimating the proper time for surgical interference.

The details of operative technique are not of general interest, and it will perhaps suffice to point out that the whole surgical procedure has been so perfected that anaesthesia, either local or general, is safe and satisfactory; there is seldom need for preliminary ligations or partial resections; meticulous hemostasis using silk technique makes drainage almost never necessary; the scar is inconspicuous and the operative risk approaches the vanishing point. Quoting Dr. Halsted[1] again it can be truly said —"There are operations today more delicate and, perhaps, more difficult, but they have followed naturally and easily in the paths made clear for them. But is there any operative problem propounded so long ago and attacked by so many which has cost so much thought and endeavor and so many lives before its ultimate solution was achieved? And further, is there any problem in surgery having required for its solution such intrepid throbbing and prolonged striving of the world's greatest surgeons which has yielded results so bountiful and so adequate?"

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5. Rienhoff, W. F.: Practice of Surgery, Dean Lewis, vol. vi, p. 116.

6. Marine, D.: J. Lab. &Clin. Med., St. Louis, 3: 40-48, 1917-1918.

7. Lahey, F. H.: New England J. of Med., 1936, vol. 214, p. 45.

DISCUSSION

DR. CHARLES W. GARDNER (Bridgeport): Mr. Chairman, it was with a great deal of pleasure that I listened to Dr. Taylor's paper. He has given us at once a practical and an instructive paper. I was interested in his historical item. It brings to our attention the tremendous strides that have taken place in the last few years in thyroid work. In the olden days, of course, only the large, obviously toxic patients were operated upon. Nowadays, of course, we are searching for the cases with minor symptoms, atypical thyroid cases. The great progress that has been made has not come about entirely by the surgical technique, but by the combined efforts of the pioneer physiologist in body metabolism plus the clinical observations of the ordinary doctor.

I am, of course, discussing this paper from the standpoint of the medical man. Just why, I don't know, but I don't do any surgery. I shall probably have to disagree with Dr. Taylor somewhat but usually doctors do disagree with surgeons. I see that he is making very definite distinctions in the thyroid case. I believe that we are coming back to Verga's original idea that goitre is goitre, and that it is just a matter of the degree of development or change in growth, rather than a different kind. We have seen this in our observations of other parts of the body, the kidney and the heart. We see a kidney at different stages and it has a different appearance, but it is always the same disease. While this is true, of course, there is a section of the country where they are emphasizing the differences rather than the similarities. I believe, however, that we should come to the old method of Verga, and I think the use of iodine is teaching us that.

I would call particular attention to the fact that the nodular goitre, so-called, doesn't seem adaptable to operation at all. Of course, Dr. Taylor has shown us some from other parts of the country, where they grow very large, but I believe we should make a distinction between the diffuse nodular goitre and the goitre that is nodular, firm, and hard — with small nodules. In regard to nodular goitres that are diffusely enlarged, it would obvisouly be impractical to operate on all of them because they are so common in certain parts of the country and, secondly, because as Rienhoff has shown, these nodules are only a part of the hyperplastic involuntary process, and if we did a subtotal thyroidectomy there would still remain considerable of the thyroid. So while it may be desirable to operate on those — and of course it is in the presence of thyrotoxicosis, or malignancy, or extreme pressure — throwing the fear of cancer into patients of that type is no reason for operating, because the type that cancer comes in, is in the small discrete nodular goitre, and that of course has neoplastic tendencies.

Iodine, of course, has a notable effect on all types of goitre, that is, the diffuse nodular as well as the so-called exophthalmic goitre, but since we find all sorts of pictures microscopically — hyperplasia and hypertrophy, and involution in most thyroids — it ill becomes us, I think, to classify them from a microscopical standpoint because, in the last analysis, we are interested in one thing: is the patient toxic or not? Or, is there pressure or not? And you have plenty of time to operate on this diffuse nodular variety when such symptoms occur, either thyrotoxicosis, or malignancy, or increase in growth, which should be one of the indications.

Talking of similarity, that brought to my mind a paper that Dr. Christian wrote one time on the similarity of the symptoms of polycythemia and pernicious anemia. Here we have a paradoxical state very much the same as that, in hyperthyroidism and hypothyroidism, in that there is hyperplasia involution in both cases, and there is a lack of iodine in both. They both respond to iodine feeding, and the iodine deficiency is in inverse relation to the amount of hyperplasia.

Speaking of the iodized salt, we had a lot of trouble a few years ago because there was too much iodine in it. Now, of course, there is one part per five thousand, and it is more satisfactory.

I am not impressed with the iodine fastness from a medical standpoint. I see patients that we keep getting under the influence; some of them get out and we get them back again. But I think the patient is almost always susceptible to it if we use the remedy properly.

I had intended to say something about the atypical cases. Of course, we are interested as I said in searching for the patient who has an atypical thyrotoxicosis; without obvious thyroid enlargement or exopthalmos we must depend on the minor symptoms to detect the disease. This from the medical standpoint is one of the most important problems we have and I know of no case that is more difficult than the ordinary neurocirculatory case, particularly if the patient happens to have an increased metabolic rate as well as the neurocirculatory asthenia. I have in mind a patient who was operated on by one of the mteropolitan surgeons without ever taking a metabolic determination either before or after the operation, and I am quite certain that the young lady never had exophthalmic goitre because she is just the same as she was before the operation. She is a neurocirculatory case, with the cold, wet hands and rapid pulse, even now, several years after the operation.

Just a word about the operative results. In my part of the country we get good results usually but I am sure if the surgeon would take out all he could take out in every case we would have better results because so many cases that are done outside of the large centers are apt to have just enough left to have what I call residual thyrotoxicosis rather than recurrence, and I am certain if they had had more out, we wouldn't have so much trouble with them now.

In the use of iodine I would say that the indications are definite in the patient we are preparing for operation and the patient who has residual thyrotoxicosis, and very rarely for the patient who for some reason or other we do not think should submit to another operation. This, of course, is the exception, because most any patient now, no matter how desperately ill she is, can usually be gotten in shape to undergo a thyroidectomy.

DR. W. C. DUFFY (New Haven): I should like to say just one word. I was interested in Dr. Taylor's technique and his record. It is an interesting sidelight on Dr. Taylor's career that the use of silk in thyroid cases in one

of the large clinics in New York, the Presbyterian Unit, did not come to that hospital as a result of diffusion of knowledge in this country but as a result of diffusion of knowledge in China. Dr. Meleney, whom he referred to, once had a service with Dr. Taylor and learned the silk technique in China, and brought it back from China, where silk originally came from, to the Presbyterian. He didn't use it at first except on one occasion when he was substituting in the summer for the thyroid expert. He operated during that time on some cases with the silk technique and his wounds were thought to be so much superior, when they were reviewed later by the men above him, that they gradually took up the silk technique, which no one should take up unless he has taken time to learn it properly and use it correctly and unless he has the proper surroundings for its use.

I should like Dr. Taylor to say a word about the use of iodized salt. In Michigan, I believe, reported by McClure, its use has become practically universal. In the first two years after its use, I believe there was a slight increase in the incidence of all types of goitre. Since that time there has been a rather definite decrease in all types.

I should like Dr. Taylor to comment on that.

DR. TAYLOR: I appreciate the discussions of these gentlemen. Dr. Gardner and I are of one mind about nodular goitre. He recommends that goitres be operated upon as soon as they become toxic or as soon as they show any evidence of malignancy. As a surgeon, I would like to advise that they be operated on a little before they show either evidence of toxicity or of malignancy?.

With reference to Dr. Duffy's question about the use of iodized salt, my own personal feeling is very much as Dr. Gardner says, that very little damage has ever been done by iodine. I don't believe much in the danger of iodine fast conditions. I, too, have seen the good effects of iodine after two or three weeks of freedom from iodine administration. I don't believe that iodized salt has any essential danger. I believe the whole subject of thyroid disease will be made better by the use of iodine.

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THE "HEALTHMOBILE" IN MARYLAND

During the summer ot 1936 the Maryland State Department of Health under the State plan for maternal and child-health services, sent out a "healthmobile" to hold health clinics for children in various parts of the State.

The staff, including a doctor, a dentist and the public-health nurse of the county visited, examined more than 2,800 children, and made recommendations to mothers or public-health officials as to their care.

In addition to the examination of children and advice to their parents, the services of the "healthmobile" have considerable educational value. It carries a demonstration outfit, layette, and feeding outfit, distributes literature and is equipped to show films.

—*The Child, October*, 1936.

SOME RESULTS OF THE SOCIAL SECURITY ACT

Oklahoma. State and Federal agencies have cooperated in setting up a health demonstration in eastern Oklahoma in an area covering five counties, largely rural with a high proportion of Indian population. Housing conditions in this area are very poor, there being many one room log cabins in some of which eight to ten people live. Typhoid immunization, diphtheria immunization, small pox vaccination, prenatal and child-health conferences comprise a large part of the program.

North Carolina. Maternity and infancy centers have been established among the poor whites and negroes. Diphtheria immunization and small pox vaccination are being carried out.

Ohio. Eight social security plans are in operation in this state. The State Department of Public Welfare has published several informative folders.

West Virginia. Orthopedic work is being stressed in this state, the number of orthopedic field nurses recently being increased from two to four. An orthopedic supervisor and a social service coordinator have been added to the staff.

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A PLAN TO FURTHER JUSTICE IN MALPRACTICE SUITS

1. Enactment of law providing that, before a complaint is filed against a physician, it must be accompanied by the affadavit of a physician setting forth in detail the exact facts of malpractice complained of.

2. Provide by statute that, upon filing the complaint, a committee of three disinterested doctors, selected from a list of qualified practitioners in the particular field, certified by the State Medical Association and paid by the State, shall immediately examine the plaintiff to determine the facts.

3. This same committee under oath to report its findings to the court, its testimony thus being available to either party.

"The members of the bar yield a willing and deserved tribute to the medical profession and will bend every effort to safeguard its rights".

—*Judge Charles P. Moriarty, Seattle, in Northwest Medicine, December*, 1936.

The Limitations of Pneumothorax Therapy in Lobar Pneumonia*

FRANCIS G. BLAKE, M.D.
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When we began three years ago, at the suggestion of Dr. Soper, to study the post-therapeutic usefulness of artificial pneumothorax in lobar pneumonia, it seemed to us equally important to try to define the limitations of the procedure as it seemed altogether probable that there would be many limitations, and these had been but little stressed by those who had favorably reported on the method prior to that time.

So that I propose at this time to discuss or present quite briefly the definite limitations of the method. During our three years' experience with the use of artificial pneumothorax comprising the treatment or attempted treatment of sixty-six cases we certainly have been able to come to a more definite opinion concerning the limitations than we have concerning its possible therapeutic usefulness.

The first and quite obvious limitation, which need hardly detain us a moment, is the presence of such extensive pleural adhesions that the method cannot be applied. That this is of not very great importance comes out from the fact that of the sixty-six patients we have encountered there were only four instances in which it was impossible to induce artificial pneumothorax because of complete pleural adhesions.

The second limitation which appeared a priori to contraindicate the use of artificial pneumothorax is bilateral pneumonia. At least it seemed so to us, although some have used the method in bilateral cases. Our experience, however, has proved that this limitation is of no practical consequence provided the method is used early because of the fact, as you well know, that practically all cases of lobar pneumonia begin as a unilateral infection, and nearly all cases as a uni-lobar infection, and in our series of forty-seven cases prior to the fourth day of the disease none were bilateral and all but seven were still unilateral lobar infections. For this reason, this limitation which appeared to us to be important at first has proved to be of no practical consequence provided the cases are treated early.

There are, however, three other and very much more important — apparently important — limitations to the use of the method. These were indicated at the end of our first season's experience in 1933-34, after we had treated twenty-two cases, and were referred to in a preliminary report published in 1934, from which I quote:

"There is no indication that it (artificial pneumothorax) will be useful in late septicemic cases with advanced consolidation of the lungs."

Again, there was lack of obvious benefit in the patients with pre-existing pleural adhesions.

These suggested limitations which came out in our first year's experience were confirmed by our second year's study during which twenty additional cases were treated. And as a result of the experience with these forty-two cases during the first two years it was again pointed out that artificial pneumothorax would appear to be of possible therapeutic value only under certain limited conditions:

First, when treatment was instituted early in the disease; that is, certainly within less than seventy-two hours after onset, probably within less than forty-eight hours in most cases, and preferably within twenty-four hours after the onset of the disease; and

Second, only when the pleura is free from adhesions which interfere with retraction of the involved lung.

Our third season's experience which is now about completed has served to confirm these impressions and to provide additional data concerning the limitations imposed by the presence

*Presented before the Connecticut State Medical Society, Hartford, May 20-21, 1936.

of bacteremia, concerning which we had little or insufficient information during the first two seasons.

First, with respect to the limitations imposed by the lateness of the disease, duration of the disease: although it seemed improbable to us when we began our study that artificial pneumothorax could be of any significant therapeutic usefulness after the third day of the disease when complete consolidation of the lobe or lobes had developed, we nevertheless thought it important to establish the fact by actual observation rather than leave it merely to theory. Consequently, during the first two years, we deliberately treated fifteen cases of more than seventy-two hours' duration, ranging from seventy-six to one hundred and six hours. Of these fifteen cases none showed any significant effect on the course of the disease. Three showed a spread to another lobe on the same side. Six showed contralateral spread. Two developed empyema, and of the fifteen cases, ten died.

I don't believe that I need to elaborate on that statement to indicate that there was no obvious benefit in cases in which complete consolidation of the lung had developed.

Our opinion, then, is that the use of artificial pneumothorax after the lung has become completely consolidated, we will say, roughly after sixty hours after onset, is contraindicated.

The second major limitation relates to the presence of pleural adhesions. Of the forty-seven cases in our series that were treated earlier than seventy-two hours after onset — that is, during the first three days — nineteen, or forty per cent, were determined by X-rays taken after the introduction of air to have more or less extensive pleural adhesions, which prevented adequate collapse of the pneumonic lobe.

Of these many, though not all, had a previous history either of pneumonia or of pleurisy. In none did pneumothorax exert a significant effect on the duration of the disease, which appeared to run its natural course. Seven of the nineteen showed a spread either to another lobe on the same side or a contralateral spread. Three developed empyema, and of the nineteen, fourteen recovered and five died — a mortality of about twenty-four per cent.

The fact that the presence of pleural adhesions inhibits the possible beneficial effects of artificial pneumothorax, if there are any, the fact that these adhesions have been found in forty per cent of the cases obviously imposes a very important and significant limitation in the number of cases that may be amenable to beneficial therapy.

It we examine the ratio of cases of adhesion to non-adhesion cases on the first, second, and third days of the disease we find the ratio is considerably higher in our series, which it is true is small, on the third day, which leaves us somewhat in doubt as to how many of these adhesions that appear in cases on the third day are old adhesions and how many may be fresh, thick, acute, fibrous adhesions.

The ratio of adhesions cases to non-adhesion cases being much smaller on the first and second days of the disease, this would merely serve to emphasize the importance of very early treatment.

The third major limitation which I wish to speak of is the limitation imposed by the presence of bacteremia. As you are well aware, bacteremia is of the greatest importance in determining the case fatality rate in pneumonia, it being perhaps three times greater in patients with bacteremia than in patients without bacteremia.

What, then, has been the result in our patients, early patients — I have already pointed out the failure in the late patients — with bacteremia?

We have seven patients who had bacteremia already present early on the second day, just before treatment was begun. Of these three recovered and four died. But it must be pointed out that two of the three cases that recovered being Type 1 cases were also treated with Type 1 Serum. Therefore they must be eliminated from consideration.

During the first three days then we had a total of eight with positive blood cultures. Of these, only one that did not receive serum, excluding those that received serum, recovered. Of the thirty-nine patients with negative blood cultures treated during the first three days of the disease, seven who had sterile blood cultures at the time treatment was instituted subsequently developed positive blood cultures. Of these, the bacteremia was transient in only four and persisted in three, who died.

There is no evidence as yet available then to

show that in the presence of an established bacteremia artificial pneumothorax exerts any favorable effect on the presence of bacteremia.

There are, then, three important and significant limitations to the use of artificial pneumothorax. First, it is of no value certainly unless used quite early in the disease. Second, in a fair proportion of cases, thirty-five to forty per cent of the cases, it will be of no value because pleural adhesions will interfere with its usefulness. Third, a fairly large proportion of cases, perhaps ten to fifteen per cent, will have bacteremia early in the disease, and in such cases it has had no significant beneficial effect.

Lest one conclude from this that there are so many limitations that the method may be of no use whatever, I simply want to close by stating, and illustrating with a few cases, that we still feel in cases treated in the pre-consolidated stage, without bacteremia or adhesions, prompt cure can be obtained in a fair number of cases.

Finally, I wish to point out, because I think it should be emphasized, that this method in no way competes with the use of antipneumococcus serum which I think most of us will agree is the most efficient method that we have for treating pneumonia and is certainly much superior to the use of artificial pneumothorax.

DISCUSSION

DR. HENRY F. STOLL (Hartford): Mr. President, I did not know until I received the program that I was to discuss Dr. Blake's paper, and so I was very much interested to hear what he had to say.

I don't see how I can quarrel with anything that he has said in regard to the limitations of pneumothorax. I think it is very wise, having discussed this thing before the State Society a few years ago showing the indications for it, for him to now come forward and show that there are definite limitations to this method. We have found essentially the same limitations.

One of the limitations is in the patient with old adhesions which, if they prevent entirely the entrance of air or if they are over the area of involved lung, make the treatment perfectly worthless. As in the case that he showed, the adhesions may be present over another part of the lung than where the area of pneumonia is, and then the results are rather satisfactory.

I rather hesitate about using it in very severe asthmatics associated with pneumonia. I have done it a couple of times, but I question the wisdom of it, and I would like to have Dr. Blake speak of that in his closing discussion.

The treatment needs very definite teamwork. Unless there is excellent teamwork, unless everybody is on his tiptoes, unless the cases are spotted when they come in and the X-ray Department gets right busy and the laboratory gets busy and everybody works fast steadily and continuously, the treatment had better not be started.

I have seen certain hospitals around the country where that has not been obtained, where they have in a sort of half-hearted fashion attempted pneumothorax work after the patient had been in the hospital two or three days, sometimes wasting very valuable time. I think that is a very important limitation.

There are really not so many cases now that are not amenable to serum. Of course, there are some people who are serum-sensitive and if they are strongly serum- sensitive I think there is a great deal of hazard in trying to desensitize them. One may get away with it occasionally, but I think pneumothorax treatment is a vastly better bet, if it can be given in that type of individual.

For Type 1, Type 2, if the dose is sufficiently large, Types 5, 7 and 8, serum is obtainable now, which is apparently reasonably satisfactory in the relatively small group of cases that have been observed. The Type 5 cases, they told me in New York the other day, respond practically as promptly as the Type 1 cases.

Another limitation is the limitation imposed, as Dr. Blake has brought out (but I will state it in a different way) by the procrastination of the physician, who sees the patient and then sits around for twenty-four or forty-eight hours to see what is going to happen, after the man has had a chill and a severe pain in his side.

Pneumonia must be diagnosed by symptoms at first as physical signs during the first twelve or twenty-four hours, sometimes forty-eight, are very indefinite, and the symptoms are almost classical. We should get the sputum, of course, and if the type is available — and there are different procedures, which is not germane to the topic under discussion, for getting early sputum — then use serum.

We believe also that the condition cannot be treated by pneumothorax after seventy-two hours, and we like to get the cases at forty-two or within forty-eight hours.

I saw an unpublished series of cases from Toronto recently, where they had had ten bacteremas with three deaths, and they used small amounts of air only. And in a controlled series of cases of over one hundred which had received no treatment of any kind, they had a mortality of I think it was fifty per cent. And this other group that they had treated had a mortality of ten per cent. It just doesn't sound good somehow but I don't know where the joker is.

Finally, in regard to the diagnosis of the disease, I think we might remember what Ovret said a good many years ago: that too late is the medicine prepared when the disease has gained strength by long delay.

DR. BLAKE: Dr. Stoll asked about the use of the method in asthmatic patients. We have used it in only one such patient, without difficulty. We have also used it in two patients with rheumatic heart disease, with some hesitation it is true. but without any difficulty. The type of patient that we are most hesitant to use it in is the quite old person with pretty marked pulmonary emphysema, and as a result of our experience I think that is a more difficult situation than is that of the young person with asthma.

Broader Aspects of Psychiatry*

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Many expressions which are now embedded in our language are a recognition of the emotional response of various organs, and describe dramatically, if crudely, bodily changes through emotional conditions. These figures of speech have survived because they are accurately descriptive, although the result of primitive observation. The language abounds in this terminology, but to mention just a few, we have the expression of a person "not being able to stomach a situation"; we speak of our "blood running cold"; we speak of "our heart being in our mouth", which is the feeling of the neurasthenic suffering from dyspnea. I believe the expression about one's hair standing "on end" with fright, has also some basis in fact. The intestines are often used as figures of speech in relation to courage or lack of courage. The neurotic who is afraid of life shows some of this fear and tension by gastro-intestinal upsets. Thus we speak of a man "having no guts", when we mean he is a coward. We speak of "intestinal fortitude" and it is a fact that the term "yellow streak" traces its origin to this same physical reaction.

These are just a few of these pithy observations that come to mind. But they do illustrate vividly, that in a hazy sort of way, our ancestors had some appreciation of the physiological effect of emotional trauma.

That they were right in their supposition is being proven more convincingly each day as evidence piles up to show that actual physical changes can and do come to pass by reason of emotional disturbances. This applies not only to the well-known functional disturbances, but many investigators are becoming convinced that the twilight zone between "functional" and "organic" is imaginary, and many so-called "organic" disturbances are seriously affected by the mental or emotional condition of the patient.

It has taken us a good many years to realize that man was not just a collection of organs, held together by bone and tissue, and with these organs sometimes getting out of order, as let us say, an automobile cylinder. Now we know that man has a mind, that he is a creature of emotions, and that it is impossible to divorce the mind and the emotions from the body, and to treat just the body, if we want to have real success.

Psychiatry has gone a long distance since the days when it was concerned only with the frank mental breakdown. Today, mental health means more than just staying out of a mental hospital; it means above all else, something positive. Psychiatry today is concerned with the individual, as an individual, and it has as its objective the direction and education of that person so that he can express his personality fully, utilize his talents to the utmost, and "be himself" as completely as possible.

Psychiatry tries to look behind the surface of things. Hence, a headache may mean eye-strain or it may be a method of dodging an unpleasant job. As Dr. C. Macfie Campbell of Boston has said, "an upset stomach may be due to an inability to digest food. It is just as likely to be an inability to digest a situation."

Sleeplessness may be an unhealthy trait if its basis lies in personal worries and emotional tangles. Even discontent with one's environment may be a mental manifestation if it is caused, not by an external thing, but by personal failure to deal with one's emotional problems. Suspicion, distrust, chronic fatigue, unsociability, marital incompatability, alcoholism and countless other personality traits may be symptoms pointing to mental imbalance, capable of being adjusted with proper care.

I stress this particular point, because it is on this broader psychiatric base that we are proceeding at the Institute. We do not feel that it is necessary for a person to have a frank mental breakdown before getting psychiatric help; it is better for him and we can help him more, if he comes to us to get some of his personality kinks

*Presented at the Semi-Annual Meeting, Litchfield County Medical Association, Bantam Lake, October 6, 1936.

straightened out, while they are still mild deviations and not tightly twisted knots.

This includes, of course, that vast army of hypochondriacs, with their dizzy spells, their quivering and shaking sensations, their palpitations, hot flashes, headaches and all the vast array of almanac symptoms with which you are all too familiar. These people are really sick — make no mistake about it — but they have translated their emotional difficulties into an apparent physical disorder. At the root of these symptoms may be conflicts, fears, worry over school, sex problems, unhappy marriage relations, and a host of obscure causes.

To slap a patient on the back and tell him to "cheer up" to "forget it" to "take a rest" or "get a change of scenery" or any other such superficial resolution of the case, is usually productive of no good results and may actually result in harm. A person cannot just "forget" these neurotic traits, these aches and pains, for the simple reason that they have their origin within the patient and he usually hasn't the slightest idea that they are caused by emotional conflict.

There have been many attempts to appraise the number of patients who go to physicians for apparent physical disorders when in reality it is an emotional disorder, and the estimates run from 30 to 70 per cent. I don't know — but that there are plenty I think everyone will agree.

One of the principal difficulties encountered by the general practitioner when treating a personality that is breaking down, is the fact that the immediate environment of the patient is frequently a potent, contributing cause of the breakdown. When I say environment I mean not only physical environment, but the persons with whom he comes in contact. Hence, to attempt his rehabilitation while the nagging mother, the unreasonable father, the frigid wife, the jealous husband or any of the other actors in that particular drama are still playing their part, is indeed a difficult proposition.

There is also the practical difficulty that the busy practitioner cannot always have the necessary time to give to his mentally sick patient. Psychotherapy is a slow, painstaking job, and can consume a great many hours before there is any appreciable result.

For these reasons, and because in many cases, particularly in depressed persons, there is always danger of self-destruction, the seriously ill person often greatly needs the care of an Institution although he may not be psychotic. A great many suicides occurring in the community are of persons who should have been receiving institutional care. Dr. A. Warren Stearns of Boston made a study of suicides a few years ago and determined that about 32% of them were definitely psychotic while many of the others were psychoneurotic or addicted to alcohol or drugs. About 50,000 persons try to kill themselves in the U. S. each year and about half of them are successful — I say this merely to indicate the need to be alert in detecting these tendencies. Some of the psychological attitudes preceding suicide may be: a sense of hopelessness, restless agitation, despair, a fear of "losing my mind", or of "going crazy", a pronounced sense of hopelessness, self-depreciation and guilt, ideas of being poisoned, castrated, killed or tortured. Pathetically enough, in many if not most cases if they had been protected during this period of depression they probably would recover from their depression. And may I add here that even in an institution well organized to meet this problem of self destruction, 100% safety cannot be obtained except at the risk of keeping a patient suicidal and reducing the recovery rate from the mental illnesses.

But to return to the importance of emotional factors in disease. Investigations are being carried on along these lines at the Presbyterian Hospital in New York and the results of five years work show quite definitely that there are emotional factors in such diseases as diabetes, arthritis and cardiac disorders. Actual cases have been followed for a period of years and acute attacks have been suffered during periods of emotional stress. Psychotherapy has been used with good results in many cases.

These same emotional factors often play a leading role in retarded convalescence. As Dr. H. Flanders Dunbar reports: "We are somewhat inclined to overlook the problems of convalescence, both because of our fixation on problems of acute illness and because we know so little about the hazards of convalescence. Yet because the psychic factor is often the determining one, this is a problem which merits the attention of the psychiatrist in particular."

This is a particularly vital problem now that our social machinery is devising and planning more extensive compensation and health insur-

ance. We know that a large proportion of our patients already well on their way to an excellent recovery all of a sudden relapse or develop a chronic invalid reaction. They never quite recover; from an economic and humane as well as from a scientific point of view, this question merits serious study. If more attention were paid to psychic factors in somatic disease, including convalescence, much expense could be saved, and much could be done to prevent the development of chronic illness in its somatic as well as its psychic phases.

However, do not misunderstand me: I do not believe psychotherapy is going to supplant materia medica — far from it, I believe that good psychiatry is necessarily based on sound physical medicine.

We feel so strongly about this at the Institute that we have concentrated a good deal of time and energy in the development of physical clinics and treatment. I believe, that as time goes on, investigation and research will find a closer link between glandular or other physical dysfunction and mental disease, than is now commonly supposed. However, that is only my guess — and in the field of mental illnesses, although we have learned a good deal, there is still a field where any one's guess is as good as the next fellow's.

The importance of exhaustive physical examinations and appropriate physical therapy in mental disease cannot be over-emphasized. That is why I say, the happy combination will be when the practising physician, well grounded in psychiatric principles, and being cognizant of the inseparableness of mind and body, will practise psychiatry as a part of his general medical practice.

I said previously that I hope we operate on a broad psychiatric base at the Institute. By that I mean we are interested in personality defects, and we are particularly interested in the preventive phases of psychiatry.

Our program is designed not merely to make the patient comparatively free from worry or mental uneasiness, but to give him something more, a capacity to enjoy life, to get the most out of life, and to be of use in life. That is why we have developed a rather extensive vocational as well as avocational program to supplement our psychotherapy, physical education and programs of physical medicine.

We all know that man in growing up has had to sacrifice some of his instinctual drives, and that this pent-up force, this stream of energy, if bottled up inside, does damage. Therefore, people have imperfectly learned to "sublimate", that is, direct certain of their energies into purposeful channels. The difficulty has been, however, that many people have been so busy working and earning a living that they have allowed their sublimations no real chance. This is particularly true of the average woman, whose adaptive qualities in this direction are not nearly as good as man's.

The practicing physician in the community does not have the time or the facilities for individualized educational work with the hysterical and neurasthenic patients who stream through his office every day. These thousands upon thousands may never get to a mental hospital but they are being rendered socially and economically inefficient and they suffer a great deal as they make the rounds from doctor to doctor, ending up perhaps in the hands of some nature fakir or quack. The family physician, of course, stands in the best position to help; he knows the background, the family; he supervises the health of the children while they are growing up. Because of his knowledge he is in a position to know about and treat the early symptoms of unhealthy mental processes. I say he is in a position to treat them — he is, providing he has a true understanding of the inseparable intertwining of body and mind; if the family physician is equipped with the requisite knowledge of mental health he will be able to treat successfully a large number of emotional disorders and thus save innumerable patients from a lifetime of semi-invalidism.

Psychiatry has travelled a long distance in these last few years. We have more things to work with, we have a better understanding of mental mechanisms and we do very frequently achieve gratifying results. We are anxious to keep psychiatry close to medical practice, and not let the two things continue to be separated, because we believe that good psychiatry must be based on good medicine.

May I add my tribute to the one and only two people of the kind, the kindly understanding and generous Dr. and Mrs. Hanchett, our host and hostess.

Association of Connecticut Tumor Clinics

Proceedings of Meeting Held at Hartford December 18, 1936

DIAGNOSIS AND TREATMENT OF BREAST CARCINOMA

PHILIP G. McLELLAN, M.D., F.A.C.S.

This presentation has been planned as an informal discussion of several of the practical points connected with the management of breast carcinoma. No attempt will be made at completely covering the subject of breast tumors. Particular emphasis will be placed on diagnosis and treatment in the hope of getting the breast tumor patient earlier, and with the hope that some standardization in the combined radiological and surgical care of these patients may develope. This presentation is based largely on our own results, experiences, and mistakes over a period of nearly twenty years.

Breast cancer is a common disease. One-eighth of the 989 cases of cancer listed in the Hartford Hospital Tumor Clinic for the five year period 1930 - 1934 were breast. Breast headed the list, with cervix, stomach, colon, prostate, rectum, and ovary following in that order of frequency.

Breast tumors in the young may be cancer. One-eighth of the 740 breast cancers analyzed occurred at the age of forty or under.

The Hartford Hospital experience in breast tumors is shown in the following chart:—

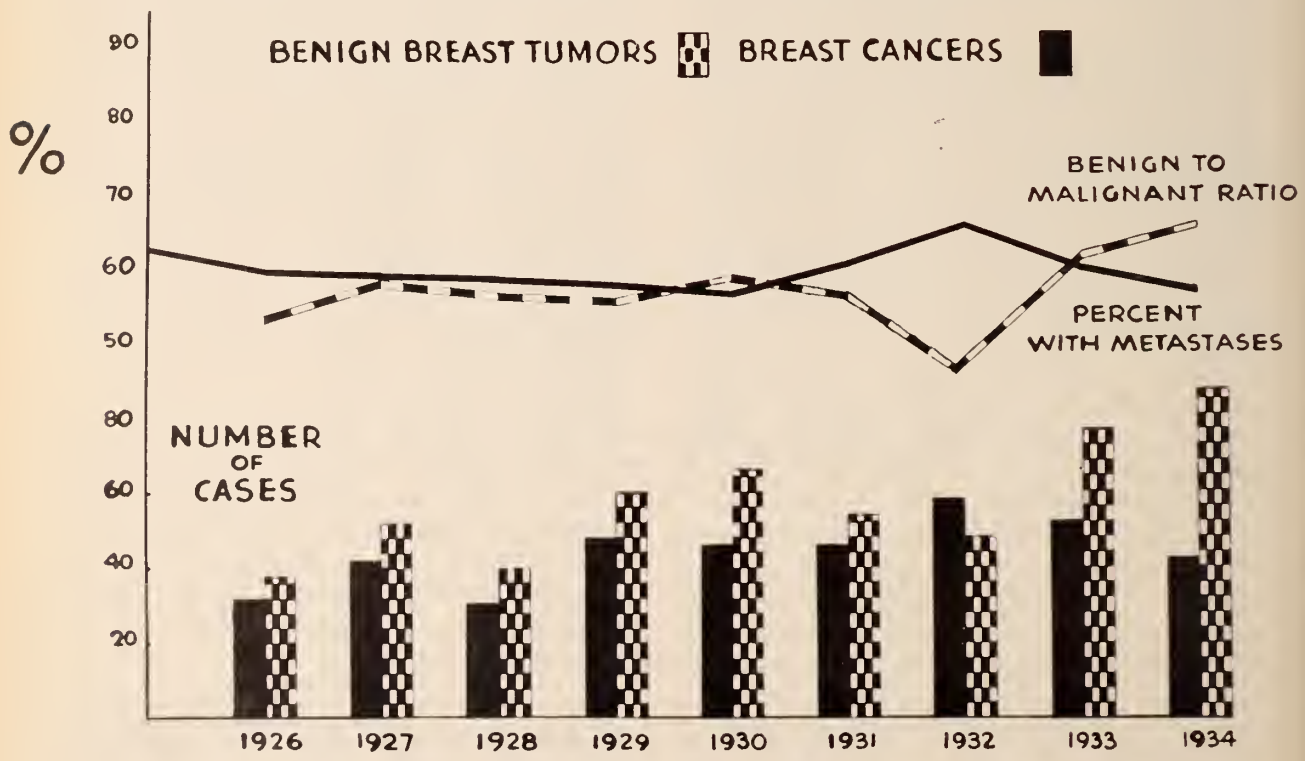


Chart 1

The black blocks represent the number of breast cancers and the checkered, the number of pathologically proven benign tumors by years. The solid dark line shows the percentage of cancers with metastases, and the broken line the ratio of the benign to the malignant cases. The percentage of carcinomas limited to the breast during this period has averaged roughly between 35% and 40%, which figure compares favorably with reports from other clinics, such as the Massachusetts General Hospital[1].

In the matter of diagnosis there is one point which I feel should be stressed above all others, and that is that the early carcinoma cannot be diagnosed clinically from the benign tumor. This same chart emphasizes this point in showing that when the ratio of the benign tumors explored to the number of cancer cases occurring in the individual year drops, we find an increase in the percentage of far advanced carcinoma, i.e., cancer not limited to the breast. In other words, when a large number of tumors are explored we are finding several early carcinomas which decrease the total percentage of cases with far advanced disease. The lesson taught then, is that the more benign tumors explored, the more early carcinoma will be discovered.

A second point I would like to stress on diagnosis is that when the diagnosis of carcinoma of the breast can be made clinically we are not dealing with early carcinoma but with advanced carcinoma and the determination of operability becomes the prime consideration in the management of this type of case. Dresser's figures[2], showing that in 500 cases examined for distant metastases, 41.4% were positive, emphasizes the importance of ruling out metastases beyond the axilla before attempting operative cure. As he so well demonstrated, X-rays of the chest, lumbo-sacral spine and pelvis, and skull will pick up the great majority of metastases. By eliminating as far as possible unsuspected distant metastases by this means I feel that the surgeon may still improve his five year end results, as without doubt many a case has had a radical operation in the past with hope for cure when X-rays taken before operation would have established distant metastases as already present.

A third point in diagnosis that I would like to stress is that pathological examination should be made at the time of operation. Embarrassing mistakes can be made by the best surgeons unless such examination is carried out. During the years 1933 and 1934 there were 151 benign and 86 malignant tumors of the breast operated upon at the Hartford Hospital. Of the 54% of the benign tumors examined by the pathologist in the operating room there was no error in diagnosis. Of the 46% not so examined there was a 4% error, and the patients in which the error occurred had an extensive operation done under the impression that the lesion was carcinoma. Of the 48% of the malignant tumors examined by the pathologist at operation there was no error as against a 11% error in the 52% not so examined. These cases had incomplete primary surgery under the mistaken impression that the lesion was benign. The importance of routine pathological examination of all operating room specimens is emphasized by the fact that these cases were all recognized as carcinoma and had proper treatment before discharge from the hospital.

The importance of early diagnosis of all carcinoma is self evident. In an analysis of 470 cases of breast carcinoma it was found that a delay of 2 - 6 months doubled, a delay of 6 - 24 months tripled the number of inoperable cases in addition to doubling the number of far advanced cases with a delay of 6 months or over. This difference in the early and far advanced carcinoma is well shown in an analysis of 3740 cases reported from the Mayo Clinic[3]. In this series the three year cures doubled, the five year cures tripled, and the ten year cures quadrupled when the carcinoma was limited to the breast.

We as physicians, are inclined to put the reason for delay in breast carcinoma on the patient. This is true in large part, but the delay due to inadequate advice and treatment by the first physician consulted is unfortunately a factor of considerable importance. During the first five years of our tumor clinic experience (1930-1934) in 200 breast cancers with known causes for avoidable delay the physician was responsible for 40 cases or 20% of the whole group analyzed. These cases in detail are:

21 patients told tumor unimportant —"forget it".

4 poulticed or drained as abscesses.

3 treated with ointments.

3 wrongly told could not stand operation — no treatment advised.

2 minimal irradiation — of no therapeutic value.

2 told unimportant after previous advice of operation.

1 advised to watch — no followup.

1 examined through her clothes — told to forget it.

1 nipple cauterized.

1 local excision in office.

1 diagnosed contusion.

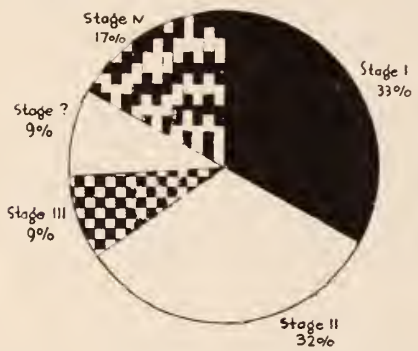
In prognosis there are two factors of major importance. The first of these is the extent of the disease at the time treatment is undertaken. To show the importance of this factor I have divided the 320 cases of breast carcinoma from 1918 - 1928 into four stages of advancement:

Stage I — carcinoma limited to the breast.

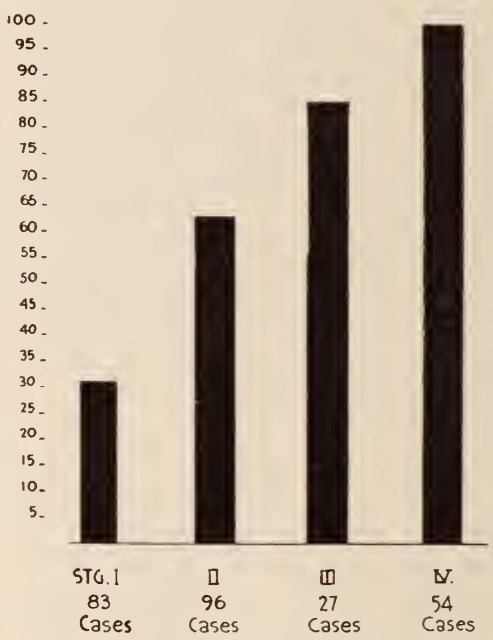
Stage II — with early incomplete involvement axillary glands.

Stage III — complete involvement axillary glands.

Stage IV — extension beyond the axilla (inoperable).



320 Cases 1918-1928
STAGE Incidence



Five Year Cancer Deaths By Stages

Chart 2

This chart shows roughly one-third of the series limited to the breast (Stage I), one-third with early axillary metastases only (Stage II), 9% with complete involvement of the axillary glands or borderline operability (Stage III), 9% in which there was insufficient data for stage determination, and 17% with extension beyond the axilla (Stage IV). The second portion of this chart gives the deaths from cancer at the end of five years in these various groups and shows that the deaths are directly proportionate to the extent of the disease.

The second factor of importance in prognosis is the pathologic grade of the individual carcinoma. Although it would be to our advantage for the sake of proganda to be able to say that if we could get our patients early we could cure them, we have to face the fact that there is an important histological factor over which we have no control. Using the same factors as Haagensen recently described[4], Dr. Ralph E. Kendall has reviewed with me all the pathology slides of the cases with follow up data which form the basis for the following chart:

HISTOLOGICAL FACTORS IN PROGNOSIS OF BREAST CARCINOMA

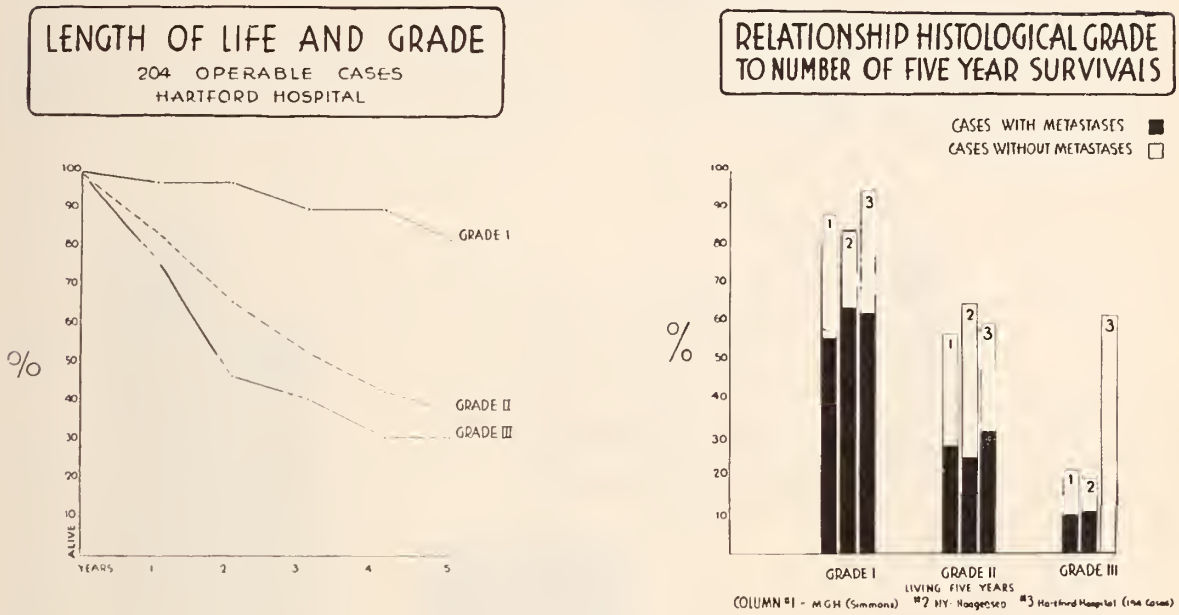


Chart 3

It is readily seen from an analysis of 204 cases in which this grading and follow-up were possible over a five year period that the grade I cases regardless of the extent of metastases have a much better prognosis than the grade II and grade III cases.

The second part of chart No. 3 brings out this point even more clearly in expressing the relationship of histologic grade to the percentage of five year survivals. The columns labelled No. 1 represent cases reported by Simmons from the Massachusetts General Hospitals. Column No. 2 represents the series reported by Haagensen[4], and the column numbered No. 3 represents the Hartford Hospital series of 193 cases. (Grade I — 8 with axillary metastases, 23 limited to the breast; grade II — 104 with axillary metastases, 42 limited to the breast; grade III — 8 with axillary metastases, 8 limited to the breast.) The three groups of columns give the percentage living five years for grades I, II, and III. The plain blocks are cases without axillary metastases and the black blocks the cases with axillary metastases. It will be seen that there is a uniformity in the three groups and that the grade II cases without metastases have a prognosis no better than the grade I cases with metastases, and similarly that the grade III cases without metastases a prognosis as bad as the grade II cases with metastases.

In the treatment of the operable case (no extension beyond the axilla) surgery is the method of choice. The typical radical operation with thorough dissection of the axilla and removal of both pectoral muscles should be done with no slighting of the completeness in the hope that irradiation that may be used will take care of what is left. Biopsy should be done only as a check on diagnosis at the time of operation.

Should the patient have post-operative irradiation? Figures on end results after such a course of therapy vary all the way from no difference to double the cures without irradiation but the basis for these comparisons have so many variable factors as to make them difficult of careful analysis. In the Hartford Hospital the use of post-operative radium has been standard* for post-operative irradiation for a sufficient number

*"The side of the chest upon which operation had been done, including the axilla and supraclavicular regions were covered with radium in blocks. The number of moves or areas varied according to the size of the chest (usually between thirty and forty). A capsule of radium emanation in the center of a block was used at a distance of 1 cm. with a filter equivalent to 2 mm. of brass. Each area received 250 millicurie hours of radiation."—R. T. Ogden, M.D.

of years (1918 - 1933) to make an analysis of similar cases possible. This series is not presented as an analysis of end results. (Previously presented[6]). A selection of cases was made only in that there was complete data and followup available. Unless the radium was given within six weeks from the time of operation the case was thrown out of the post-operative radium group. This selection left 208 cases available for analysis which fell into the following groups:

	Postop. Radium		Operation Only	
	Stage I	Stage II-III	Stage I	Stage II-III
Grade I	8	4	24	4
Grade II	14	57	28	53
Grade III	3	3	6	4

In the selection of comparable groups that large group of grade II histologic malignancy with axillary metastases (Stage II-III) was taken as the basis for the following chart:

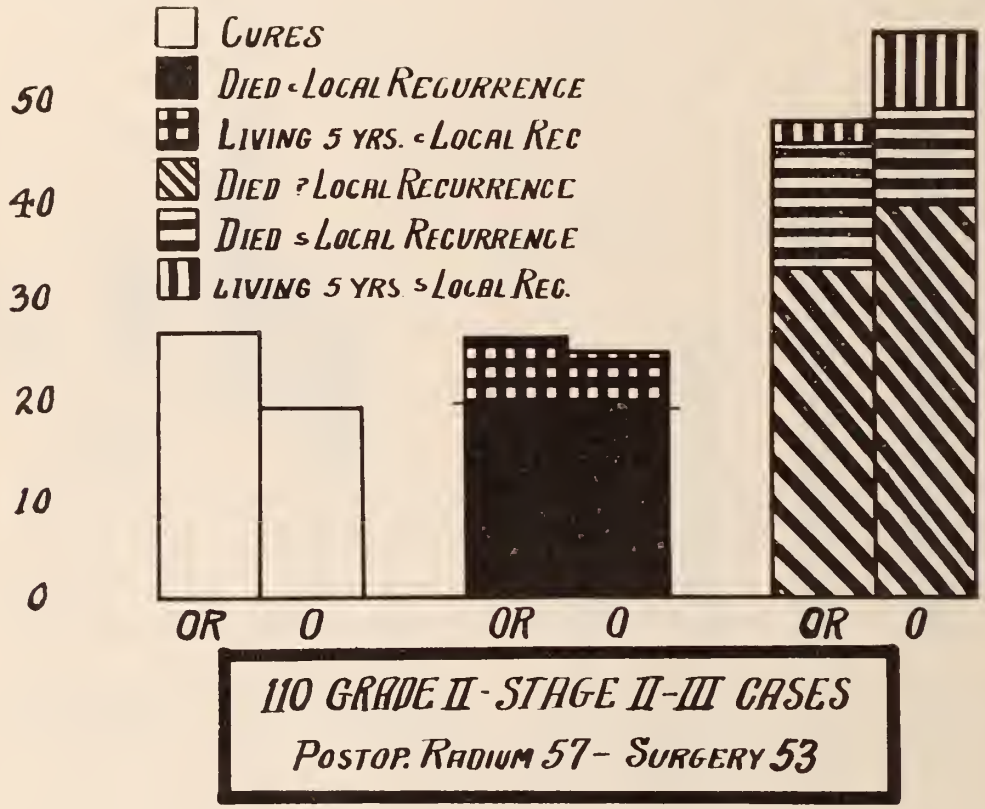


Chart 4

The cases receiving post-operative radium are designated by OR and the cases treated by surgery alone by O. There were 7% more cures (cancer free for 5 years) in the irradiated group. If the post-operative radium were of value one would expect that the percentage of local recurrences would be reduced in the irradiated group. This, however, was not borne out as there was a 19.3% recurrence in the irradiated group as against a 19% recurrence in the cases receiving surgery only. In that group of cases living 5 years and with local recurrence there was likewise a larger percentage in the irradiated group. The largest single group died of cancer without data being available as to local recurrences, the operative group being slightly larger. Those dying of cancer but known to have had no local recurrence were nearly the same for both groups. In the group living for 5 years and dying of cancer later but without local recurrence there is a distinctly favorable balance for the surgical group, enough to make the difference in favor of the five year cures as expressed in the first blocks negligible. In all fairness I think it should also be stated that if there was any difference in the ability of the surgeons of the two

groups, that the edge lay with the irradiated group as the "occasional operator" usually did not use post-operative radium. It is apparent from this chart that post-operative radium has been of no value in our series of cases. The high percentage of local recurrences is in part explainable in that many of the cases were done over 15 years ago, yet this high percentage in itself gives a better test as to the value of the post-operative radium.

Our conclusion of the lack of any value to post-operative radium I do not believe is necessarily applicable to post-operative high voltage X-ray. In this latter form of therapy we undoubtedly have a more penetrating and more uniformly effective method. What has been accomplished in the cases I am about to show is certainly convincing that X-ray can be a powerful therapeutic weapon in the management of these cases.

Case No. 1. No. 301318. J. G. Age 71. Severe cardio-renal with a large carcinoma of the left breast and axillary metastases. Due to poor physical condition given 3740 r units of X-ray to breast and axilla. Regression of axillary gland and tumor. After 17 months area of "fibrosis" in breast excised and pathological examination showed active carcinoma still present although not clinically apparent. Further X-ray therapy given. Patient died 5 months later of heart disease with no apparent recurrence of the carcinoma.

Case No. 2. No. 295259. C. O. Age 60. Advanced carcinoma attached to chest wall with axillary and supraclavicular glands palpable. X-rays of chest and bones negative. Given 3740 r units X-ray to tumor and glands with regression of the glands and the tumor becoming movable on the chest wall. Eight months later simple mastectomy done and pathological examination showed extensive fibrosis with no carcinoma found. No recurrence of carcinoma locally or regionally but X-rays taken recently (14 months after start of therapy) showed multiple skull metastases.

Case No. 3. No. 318343. R. E. Age 53. Large fixed carcinoma with extensive ulceration and axillary gland involvement. X-rays negative for distant metastases. Ten weeks after X-ray therapy lesion freely movable, much decreased in size and regression of axillary glands. Local excision done and second photo ten days after operation shows wound well healed despite moderate tension in closure. Second course of X-ray given. Patient now 8 months since start of therapy and free from carcinoma to clinical and X-ray examination.

Case No. 4. No. 300314. A. K. Age 66. Severe cardiac with ulcerating lesion of right breast and with palpable axillary gland. X-rays negative for distant metastases. X-ray therapy of 2000 r units to breast and axilla and one week after completion of therapy breast tumor and axillary gland excised under novocaine anesthesia. Pathological section showed active carcinoma. Now 22 months later has no clinical or X-ray evidence of carcinoma.

Case No. 5. No. 323694. G. C. Age 52. This case is presented as an operable carcinoma with planned preoperative high voltage X-ray therapy. Mass in right breast typical of carcinoma — no evidence of carcinoma metastases clinically or by X-ray. Aspiration biopsy proved carcinoma. Preoperative course of 1800 r units to four ports given, followed in 6 weeks by radical operation. Slide shows satisfactory wound healing 9 days after operation. Patient now 6 months since start of therapy and free from any apparent carcinoma.

Case No. 6. No. 311725. L. H. Age 45. Left breast replaced by hard typically carcinomatous mass firmly attached to chest, having been treated for 1 year with vibrators by a naturopath. No apparent metastases clinically or by X-ray. Heavy X-ray therapy of 2750 r units to three large ports plus sterilization. Three months after this heavy irradiation a radical operation was done. Pathological examination could not prove carcinoma. Wound failed to heal, resection of a necrotic rib had to be done and now 10 months after operation wound is still unhealed. No evidence of carcinoma.

Case No. 7. No. 310751. E. H. Age 73. Local excision of carcinoma done elsewhere 4 years ago. Recurrence 18 months duration with ulceration for two months. In addition to the ulcerated area there was a fixed mass 5 cm. in diameter laterally located. Complete healing of the ulceration and regression of the recurrent mass following intensive X-ray therapy. Now 16 months with no local recurrence.

Case No. 8. No. 306019. L. P. Age 69.

Radical operation elsewhere 3 years ago. Recurrence 3 months duration. Large mass fixed to chest with recurrent axillary gland. Complete regression following X-ray therapy. Two subsequent recurrences above clavicle and in skin of chest wall outside area treated have likewise regressed under heavy X-ray therapy. Now 17 months since start of therapy and without apparent recurrence.

Case No. 9. No. 316628. D. F. Age 47. Large ulcerating tumor replacing the breast with axillary and supraclavicular glands and nodular metastases in both lungs. Heavy X-ray therapy after biopsy with satisfactory regression and healing of the ulceration. X-ray sterilization also done. Now 9 months after start of therapy patient has involvement of opposite axilla and breast. Outlook very poor.

Case No. 10. Out patient. Age 86. Large ulcerating carcinoma of 4 years duration. Complete healing and satisfactory regression following intensive X-ray therapy.

These cases are presented to show what X-ray therapy can accomplish in various types of cases — in palliation — and in combination with surgery and were chosen to bring out various points in therapy, the mistakes as well as the satisfactory results. Certainly a review of these cases must impress one with the fact that high voltage X-ray accomplished something definite in at least holding the cancer in check for varying periods of time. It undoubtedly has a place in the treatment of breast cancer and I would like to present for your consideration a possible uniform outline of treatment for the ward cases so that the patient might be treated not so much because of whose patient she is as because of what type of disease she has. Dresser[2] has outlined what seems to be a very satisfactory program in the operable cases. I would then suggest that:

A. Post-operative irradiation be given to the following cases:

1. Cases having had mastectomy only.
2. Cases with axillary metastases.
3. Cases still menstruating.

B. X-ray sterilization be given to all cases still menstruating.

C. A combination of surgery and irradiation in the palliative case be determined by the surgeon and the radiologist in consultation before the start of any therapy.

As to preoperative irradiation — the tendency seems to be towards this form in preference to the post-operative course and theoretically seems more logical but enough time has not elapsed since its use to make a definite recommendation at this time.

In closing I would like to stress again:

1. That the early carcinoma can only be diagnosed by pathological examination in the operating room.

2. That the clinically diagnosible carcinoma is not early carcinoma and that in such cases every attempt should be made to establish operability.

3. That operating room pathological examination will avoid many embarrassing mistakes.

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ASPIRATION BIOPSIES IN DIAGNOSIS OF SOLID TUMORS

R. E. KENDALL, M.D.

The value of aspiration biopsies in selected tumor cases has, during the past few years, been amply demonstrated. Without entering into the discussion of the relative value of fixed tissue or smear preparation, it has been our experience in 89 aspiration biopsies that we have obtained the greatest information by the use of fixed tissue preparations. This is probably due to the fact that the microscopic pictures are more

or less similar to those with which we are familiar in routine surgical tissue work.

During the past few years we have developed several points which are of value in obtaining and handling aspiration material and which we may call our standard technique.

1. Under novocain the skin is nicked with a scalpel. This is to avoid obtaining in the microscopic tissue a fragment of the superficial epithelium which so frequently occurs when the needle directly pierces the skin.

2. The needles, of varying sizes, are of the type having a bayonet stylet and a circular cutting edge. This type of needle can be more accurately directed and the cutting edge permits of a more satisfactory biopsy specimen — Figure No. 1.

3. After inserting the needle into the tumor, the stylet is withdrawn and suction is made with a Luer or Record syringe. The needle is advanced, maintaining the suction constantly, rotated and withdrawn, still continuing the suction.

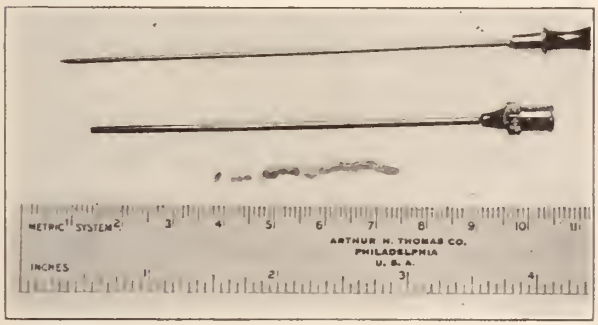


Fig. 1. Bayonet Type of Needle and Specimen obtained.

4. The needle and syringe are sent to the laboratory together where the aspirated material is rinsed into saline solution.

5. The tissue fragments are collected by centrifugation, saline decanted and the specimen covered with 0.5 cc. of oxylated or citrated blood plasma, using no more than 2 to 4 mgs. of oxylate or citrate per cc. of blood.

6. By the addition of 1 to 2 drops of a 1% calcium chloride solution, recalcification of the plasma results in a firm clot developed in from 1 to 15 minutes.

7. After the clot has formed, it is permitted to contract by absorbing the fluid with the aid of filter paper. The contracted clot firmly enmeshes the biopsy material and the whole is fixed in Formalin, or preferably Zenkers, and easily handled as a routine surgical specimen.

Table I gives our total results during the past four years on aspiration biopsies. It is apparent that only the positive biopsies have any diagnostic value. No significance, even after several repetitions, can be placed on a negative report.

Table I

Results in 89 Aspiration Biopsies

Positive	46%
Negative	54%
Confirmed Negative	25%
False Negative	31%
Inconclusive Negative	44%

The higher percentage of positives in the comparison of our standard to other methods, Table II, is influenced not only by adhering to details outlined above but also by the increased experience in selection of cases and improved technique of the operator.

Table II

Comparisons of Methods 40 Aspirations 1936

Standard Method	52.6% Positive
Other Methods	33 % Positive

Summary

In 89 aspirations of solid deep tumors, positive diagnoses have been obtained in 46%.

Negative results are of no diagnostic value.

Critical selection, obtaining and handling of aspiration material increases the value of this diagnostic procedure.

DISCUSSION

Dr. D. J. Roberts (Hartford) Dr. McLellan's remarks regarding a system for handling breast carcinoma cases, particularly as regard ward services, seems very timely and some such system as Dr. Dresser has advanced sounds indeed logical. Dr. Dresser has also brought to our attention in this country the advantages of sterilization in women developing carcinoma of the breast prior to menopause. He found about one-third of the cases showing bone metastases were distinctly improved by sterilization alone as demonstrated in the roentgenogram. This has been rather uniformly adopted in many foreign clinics. In Germany as far back as in the 90's it was noted that women who had developed carcinoma of the breast and subsequently had their ovaries removed showed a retardation in the development of the carcinoma.

Lasagne of France produced carcinoma of the breast in both male and female mice with large doses of the ovarian hormone folliculin.

Pneumonitis following heavy irradiation of the breast area is noted in not greater than 10 to 20% of the cases and while these may be productive of some symptoms, it does not seem to be a factor worthy of very great consideration. We have recently observed a patient where this occurred within three months' time following irradiation, noted by x-ray examination. This was non-symptomatic and when the patient subsequently died, having an extensive liver metastases, the fibrosis of the lungs was no longer evident.

Irradiation technique changes so radically from year to year and varies so greatly in different clinics that it is difficult to advocate a uniform method of procedure at this time. The trend in many places is swinging back toward the pre-operative procedure, particularly where a positive aspiration biopsy may be obtained. The amount of the irradiation should not interfere with normal healing following the subsequent operative procedure.

Adair at the Memorial Hospital in New York has recently published sixty-nine cases which had pre-operative irradiation followed by a radical mastectomy within two months, 33% showing no evidence of the carcinoma at the time the breast was removed. All of these cases had a previous positive aspiration biopsy.

Whether pre-operative or post-operative in its use, x-ray therapy should cover not only the field of operation but the internal mammary chain of lymphatics as well as the axillary. It should be appreciated that experience has shown that in cases of the diffuse colloid and the diffuse duct type carcinoma, x-ray therapy is practically useless.

The meeting is now open for general discussion and it is hoped this will be entered into freely.

Dr. H. G. Jarvis (Hartford): I have been interested in this subject for some time. I had occasion to talk with Dr. Douglas Quick and Dr. Verdi while in New Haven. Dr. Quick felt that irradiation did a good deal in helping and Dr. Verdi thought it had no value, and I stayed in the middle ground. I feel that particularly post-operative irradiation does a great deal of good. It seems that we retard or hold the advance of the metastases. I think the operation has not changed a whole lot, except that the extent has increased.

Dr. E. R. Lampson (Hartford): We are all interested in getting these cases early. Dr. McLellan showed the case treated by the naturopath. For a long time we said very unkind things about the naturopath. About a week later on the service in came a woman with a condition almost identical and she had been treated for eight months for a tumor of the breast by a regular practitioner of medicine. We felt that we had little to say against the naturopath after that. The prime importance, I think, of these tumor sessions throughout the state is that they may have a part in aiding not only the surgeon but the medical man in detecting these cases earlier. The statistics have shown that this is the most important thing that can be brought before the medical profession. I think there are medical men, as well as surgeons, that may profit and carry the information that Dr. McLellan has presented.

Dr. H. B. Lambert (Bridgeport): I have enjoyed these talks immensely. They were clear and concise and cannot fail to have a great deal of information for all of us. I spent a great deal of my time making resolutions. I believe in Hartford you are far ahead of anything we have in Bridgeport on your aspiration biopsies. I can add nothing to the discussion except to thank you.

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THE SOVIET UNION PLANS BETTER MEDICAL TRAINING

According to a decision by the Council of People's Commissars of the Soviet Union, reported in a recent number of The Moscow News, provision is to be made for more thorough instruction for medical workers of various categories. For the training of junior medical practitioners (feldshers), midwives, nurses for hospitals and nurseries, and medical laboratory workers, the following schools are to be established: Junior medical schools with a three-year course for 44,880 persons; midwifery schools with two years' study for 13,300 persons; schools for medical nurses and nursery nurses for 95,000 persons; one-year courses for medical laboratory workers for 5,200.

Candidates for these schools must have a general education not below that of a seven-year general school. In addition to these schools, post-graduate courses are to be organized for the junior personnel of medical institutions, who are to study without leaving their jobs.

Dental surgeons are to study in stomatological institutes for four years and dentists are to be trained in dental schools for three years.

In addition to the existing institutes for the study of mouth diseases, Moscow, Leningrad, Perm, Irkutsk, Tomsk, Ivanovo, Voronezh, Kief, Kharkof and Tiflis, stomatological institutes are to be opened in Kazan and Smolensk. All these institutes are to be financed in the budget of the U. S. S. R.

Pharmaceutists of the highest qualifications are to be trained in special pharmaceutical institutes that have four-year courses, which will admit only persons having a full secondary school education and who have passed an examination for admission to a higher school and also in Latin.—*N. Y. Times, Nov.* 19, 1916.

The Free Choice of Physicians*

HUGH CABOT, M.D., L.L.D., F.A.C.S.
Professor of Surgery, University of Minnesota Graduate School of Medicine, Rochester, Minnesota

Insistence upon the freedom of choice of physicians by patients is one of the points upon which there is the greatest unanimity of the medical profession in all countries and perhaps in all ages. Wherever discussion arises in regard to adjustments of medieval service to the changing requirements of the community, physicians will be found insisting that freedom of choice shall be recognized as essential to the perpetuation of satisfactory practice. Thus, wherever compulsory insurance has been considered or introduced, wherever Workmen's Compensation Acts come up for discussion, there is this constant insistence upon freedom of choice.

Since I appear this evening somewhat in the guise of the devil's advocate, it may be proper to point out that this insistence, although regularly voiced by the medical profession, is relatively rarely raised by patients. There are many instances of organizations set up for the offering of health service in which little or no freedom of choice is allowed, and yet there is little or no objection on the part of patients. I am not sure myself whether it is the freedom of choice upon which we should insist, or what is very different, a guarantee against denial of choice. Commonly enough, we accept little or no choice, provided the appearance of choice is not denied.

Basic Economic Doctrine

Now I present for your consideration this evening the proposition that freedom of choice on the part of a consumer is a well-known doctrine of economics. In business, or under any economic set-up under Democracy, freedom of choice on the part of the consumer is as much accepted as is the doctrine of competition between producers. In fact, if there is to be no freedom of choice, there can be no competition, and the two run parallel. On the other hand, it is an accepted economic law that between buyer and seller there shall be freedom of choice and freedom of opportunity. Now choice on the part of the buyer has at least three basic requirements:

1. The buyer must have a clear knowledge of the article sought. 2. He must have a reasonable knowledge of the article which is offered. 3. He must have complete freedom to compare the article offered by one seller with the advertisements and with the articles offered by other sellers.

Let us now examine freedom of choice of physicians with these accepted economic doctrines in mind:

1. Has the patient a clear knowledge of the article sought? In general terms he may desire general medical service or he may desire special medical service, but in any case it must be relatively obvious that he can have little or no knowledge of that which he seeks to purchase. He seeks, under the heading of general medical service, a physician who has a broad basic training, who has had a large experience, and who will bring to his patient skill and knowledge in the diagnosis and treatment of all the ills of mankind. If he seeks special service, he must then have evidence of the equipment of the physicians to give service in the special fields of his requirement. I suggest to you that it is not at present possible for the prospective buyer to obtain knowledge of the quality of the article sought.

2. Knowledge of the article offered requires that the prospective buyer shall have knowledge of the skill and capacity of the seller, but obviously, he is in no position to judge of these qualifications in advance. Equally obviously, there is an immense variety of articles offered under the name of medical service. No one will deny that the skill and capacity of physicians, whether in the general or in various special fields, varies within enormous limits, and of these the prospective buyer can, I submit, have no knowledge.

*Read at the Banquet of the First Annual Meeting of the Mississippi Valley Medical Society, Quincy, Ill., Oct. 3, 1935. Reprinted by the courtesy of the Radiologic Review & Mississippi Valley Medical Journal. (Quincy, Ill.) 92-95, May, 1936.

It is commonly alleged that the buyer may safely depend upon the reputation of the seller in this matter. Now, between ourselves we shall probably be willing to admit that the reputations of many of us are based upon qualities quite apart from our knowledge of medical science or of our skill in applying it. We shall probably be willing to admit that, what used to be known as a good bedside manner, is more important to our reputations than profound scientific knowledge. In our more truthful moments we may be even willing to admit that a charming or reassuring personality will carry a physician far beyond the reputation to which his scientific knowledge and technical skill would entitle him. I suggest, therefore, that the theory that the reputation of a physician is a sound guide to his ability is, although frequently asserted, quite lacking in trustworthy foundation.

3. The third accepted tenet of economic theory is that there should be complete freedom to compare the article offered by one seller with that offered by another. Now in the business world this seems like a reasonable requirement, and as a matter of fact, all of us are aware that it is the method by which our wives spend our incomes. One has only to spend a few moments in any department store, observing counters littered with articles offered by the seller to the buyer who, in fact, has no intention of buying. This is the method by which the large majority of the buyers of the community come to their conclusions. But, if we suggest that the buyer in the case of medical service takes the opportunity of comparing the skill and knowledge of all of the physicians in the community, we shall be met by the violent objection to what is known in the jargon of the trade as "shopping around". All of us are in the habit of condemning this practice on the part of prospective patients, although we certainly allow it, and probably applaud it, in the case of practically all other articles offered for sale.

It thus appears that the freedom of choice upon which we insist fails entirely to live up to any of the requirements ordinarily regarded as basic in economic law.

Workmen's Compensation Acts

To come down to more concrete cases — most of us have probably taken part in discussions concerning the working of the Workmen's Compensation Acts in our particular states. These Acts commonly allow the insured corporation to select the medical adviser for his insured workmen. Commonly enough, this selection is made not by the employer, but by the insurer of the employer, namely, the insurance company. Over this provision of many or most Workmen's Compensation Acts there has been continual outcry on the part of the profession. We have insisted that the employee shall be allowed freedom to select his medical adviser. Now in this case the article sought by the employee is, (1) an expert in industrial accidents; (2) an expert in industrial diseases; (3) a competent and thoroughly honest witness, should any discussion or dispute arise in regard to the compensation.

Now — I ask you — how is the average working man to select from the physicians of the community one who in fact has these qualifications? Certainly the average general practitioner is not an expert in industrial accidents. Certainly he is not an expert in the diagnosis and treatment of industrial disease, and finally, he may make a shockingly incompetent witness, because, forsooth, he is unaccustomed to the manners and customs of our brethren of the law.

As a matter of fact, industrial medicine, including industrial surgery, has now become a specialty. The workman is quite without means of identifying the expert. The insurance carriers, objecting to free choice of physicians, very properly put forward the argument that, free choice of physicians is very likely to result in a poor choice, which in fact prolongs disability and enormously increases compensation. That the selection of physicians by the insurance carriers has not always been in the interests of the insured, may be readily admitted without at all invalidating the soundness of their argument that, under our present arrangements selection by the insured stands no great probability of being made on any logical or reasonable basis.

Classification of Specialists

I put it, therefore, to you quite frankly that as the case stands, freedom of choice amounts to little more than freedom of guess-work. The patient has no sound basis for choice, there is relatively little classification of physicians, and there is no disinterested party to whom he may apply for advice. On this basis it seems to me that if we are really concerned with the best in-

terests of the patient, we should spend less time in talking about freedom of choice and spend more time in setting up classifications which will enable a reasonable choice to be made. I put forward for your consideration the suggestion that classification of physicians is becoming inevitable. The public will not accept our assertion that sound practice and sound development of health service depend upon freedom of choice, until we put forward methods by which that choice can be one in fact rather than in name. This means classification of physicians. Now we have already made some progress in the classification of specialists. For many years there have been boards set up by various specialties which will pass upon the credentials of those who wish to be certified as finished specialists. The development of the American College of Surgeons and the American College of Physicians is a step in the same direction. The recent developments under the auspices of the American Medical Association by which there are being set up in the various specialties, boards which will pass upon the qualifications of specialists, is clear evidence that we have recognized the need for classification and certification in special fields. That this is for us a definite advance, no one will, I think, deny. But as a matter of fact, we are on the whole behind rather than in advance of most European countries in this regard. Many of them have for years had registers of specialists to which register admission could be had only upon the certification of the profession itself. I suggest this in order to show that this is not an advanced doctrine in the world at large.

But when we have successfully classified our specialists and seen to it that no one holds himself out as a specialist who does not in fact have qualifications, judged by his peers to be satisfactory, we have still failed to classify a majority of the medical profession. The proportion of specialists necessary to carry on sound medical service has never been judged to be more than something like thirty per cent. The balance are men in the field of general medicine and for them no attempt at classification has been made. Here, classification presents considerable difficulties. We are all aware that the extent to which men in general practice keep abreast of the times, is rather variable. Oftentimes, the busiest practitioner may be the one least abreast of contemporary improvement. In fact, the busier he is, the more likely he is to fall behind. This cuts right across the whole doctrine of the choice of physicians. If the patients select him because of his apparent success, they may well find that they have selected an affable gentleman, who is still practicing the medicine of a generation ago.

Classification of General Physicians

If we are serious about this freedom of choice, we must, I think, take seriously the proposition that having classified our specialists, we must classify our generalists. Now the most important question in the classification of general men is the extent to which they have kept abreast of the times. As far as I can see, there is no way in which this can be satisfactorily accomplished except by the same requirement which is everywhere laid down for promotion in the medical service of the Government, namely, periodic examinations. I am aware that the suggestion that we should regularly pass examinations for promotion to a higher grade will meet with almost universal opposition, but this opposition, I think, can come only from our fear that it might in fact classify us according to our exact knowledge and not according to our success in obtaining practice. Periodic examinations would be a burden, but we shall find it difficult to maintain the myth of freedom of choice of physicians, unless some such method be resorted to.

I say to you, gentlemen, that we cannot have it both ways. We cannot insist upon freedom of choice and, at the same time, insist that no classification shall be made tending to show our skill and capacity.

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THE PARAMOUNT BUSINESS OF MEDICINE

The following is quoted from the message sent to the members of the Wisconsin State Medical Society by the President, Ralph M. Carter. "The task now confronting the members of the medical profession is to prove themselves to the American people and to demonstrate to the people that no scheme of state medicine can take the place of private practice. To do this we must re-affirm certain ideals and prove to the people that we are living up to them. The chief and most important of these ideals is, that the health and well-being of the public is the paramount business of medicine. We must make this our chief concern."

Fellow of the American Medical Association

CREIGHTON BARKER, M.D., Administrative Secretary

WHEN a physician joins his County Medical Association he automatically becomes a member of the State Medical Society and the American Medical Association. The dues that are paid to the County Treasurer include also dues to the State Medical Society, but do not include any contribution to the support of the American Medical Association. Although membership in the A. M. A. accompanies membership in the State Society a physician is not a Fellow of the American Medical Association unless he subscribes to the Journal of the Association and thereby contributes to the support of its activities.

It is a fair question to ask "Why should I be a Fellow of the American Medical Association, and in what way do its activities affect me, the individual practitioner of medicine?" Your Secretary has recently visited the headquarters of the American Medical Association in Chicago, and had an opportunity to explore the many things that the Association does, and the answers to these questions are easy to give.

None but Fellows are eligible for election as officers of the Association, or to participate in the work of its Scientific Sessions. The policies of the organization are carried on by the House of Delegates, and the Board of Trustees is the governing body in the interval between annual meetings of the House, and is charged with the duty of administering the affairs of the Association. The actual work is carried out largely through its executive officers, its various councils and its publications. Every Fellow should consider these as his representatives.

The major activities of the Association are:

Council on Medical Education and Hospitals

This body has brought the standards of premedical education to a basis by which they are recognized throughout the world. College sessions have been lengthened, courses reorganized, better buildings and laboratories secured, better equipment provided, more and better teachers employed, better clinical material obtained, and improved methods of teaching adopted. Detailed information concerning all schools is maintained, and the schools are classified. This Council also collects and disseminates information about hospitals. It maintains a list of hospitals, specifying the rigid requirements of the A. M. A., a list of hospitals that are approved for internships, a list of hospitals offering approved residencies in the various specialties, and a list of qualified clinical laboratories and radiologists.

Biographical Department

This department has been collecting personal data regarding medical graduates and licensed physicians for thirty years, and maintains an index of the physicians of the United States and Canada, and publishes a directory of all physicians for two or three years.

Council on Pharmacy and Chemistry

The Council on Pharmacy and Chemistry offers protection to physicians in choosing proprietary remedies. The findings of the Council are published in the Journal of the A. M. A., and annually in the book "New and Nonofficial Remedies". Here one can check up on claims made for medicinal preparations which may be offered for use.

Chemical Laboratory

The Association's Chemical Laboratory is well equipped for the chemical investigation of newer remedies as presented to the medical profession, and original investigations along lines which will be of service to the profession at large are undertaken. It also replies to numerous inquiries from physicians, and serves as a clearing house for information on the many new additions to materia medica, particularly the complex synthetics.

Bureau of Investigation

The Bureau of Investigation collects and disseminates information on patent proprietary medicines, all forms of quackery, medical fads and fakes. Any physician desiring specific information on some preparation may ask the Bureau for details and facts. It has published a wealth of material on patent medicines, and has available lantern slides and exhibition material for lay audiences.

Council on Physical Therapy

This Council consists of clinicians, physicists, physiologists, pathologists, radiologists and surgeons, and was established for the purpose of gathering and publishing information to assist the medical profession in determining the therapeutic value of devices and methods employed in the administration of physical therapy, and protecting the public and the conscientious manufacturer against fraud and misrepresentation. The Council publishes a list of devices that have been investigated and reported on in accordance with the official rules of the Council and the "Handbook of Physical Therapy." Through these authoritative communications the Council has, in a large measure, divested physical therapy of the unwarranted therapeutic claims and the absurd theories with which it has been burdened.

Committee on Foods

This Committee is authorized to use the influence and prestige of the Association for the establishment of the truthful and proper advertising of foods and to act in the interest of public welfare on food matters and the nutritional values of foods. Voluntarily submitted foods accompanied by complete advertising and information on formula of ingredients, analysis, microorganisms content, definition of specifications of raw materials used, description of manufacture, caloric value, vitamin content, and compliance with food laws, are scientifically passed upon and appraised. Foods which meet the Committee's requirements as foods and are properly advertised and promoted, are listed as "Accepted Foods". Manufacturers of "accepted" foods are privileged to display the seal of the Committee on the package labels and in advertising and are obligated to maintain their products and advertising in full accord with the Rules and Regulations of the Committee.

Bureau of Health and Public Instruction

This Bureau seeks to educate the public through the columns of HYGEIA, the health magazine for the public, and by the distribution of carefully prepared articles and pamphlets written by recognized medical authorities. The Bureau also has available posters, pamphlets, and exhibition material to be shown at health exhibits of lay organizations. It has distributed thousands of pamphlets on baby welfare, sex education, contagious diseases, cancer, school health problems, and other subjects.

Bureau of Legal Medicine and Legislation

This Bureau keeps in constant touch with legislation and court cases of interest to physicians, and such information is at once available to all Fellows of the Association.

Bureau of Medical Economics

This Bureau is established to study all phases of general economics which have a bearing upon the practice of medicine, and is attempting to collect, study, criticize and prepare for publication data pertaining to the economics of the practice of medicine, and to furnish both critical and constructive information. This includes information concerning collection agencies, health and accident insurance companies, malpractice insurance, corporations, associations, and groups providing contract practice, and many other data pertaining to the economics of medicine is kept on file for answering inquiries.

The American Medical Association Library

This library is planned primarily as a reference library for the headquarters office, and for rendering service to the medical profession. More than 1200 medical journals, domestic and foreign, are regularly received, many of them abstracted and indexed. An index of articles currently published, by both subject and author, is provided through the Quarterly Cumulative Index Medicus. Journals on file in the library may be borrowed by Fellows of the Association, and through the package service Fellows may secure for temporary use reprints of articles on medical subjects.

Publishing Department

The Association maintains its own printing plant which publishes the Journal, Hygeia, the Archives of Internal Medicine, the American

Journal of "Diseases of Children", the "Archives of Neurology and Psychiatry", the "Archives of Dermatology and Syphilology," the "Archives of Surgery," the "Archives of Otolaryngology," the "Archives of Pathology", the "Archives of Ophthalmology", and the Quarterly Cumulative Index Medicus.

Those are the things that the American Medical Association does for the individual physician. It is gratifying to note that nearly 1,000 of the 1,600 members of The Connecticut State Medical Society are Fellows of the A. M. A., a proportion that is not exceeded by many other states; but those of our members who are not Fellows and subscribers to the Journal are as Doctor Upham, the President-Elect of the Association, stated at the Secretaries' Conference in November, missing the biggest money's worth that is offered.

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TYPHOID FEVER DEATHS

According to the annual report on typhoid fever printed in the Journal of the American Medical Association, Connecticut may boast two cities among the twenty-four large cities in the country having no deaths from typhoid in 1935. These cities are Bridgeport and New Haven. These same cities also had no deaths from diphtheria during the same year. An enviable record!

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EUGENIC STERILIZATION

Slowly but steadily there is an increasing interest in this problem manifesting itself throughout our country. Beginning with 1899 when Dr. Henry Sharp began sterilizing males by vasectomy and augmented by the passage of Sterilization Bills in Oregon and California in 1909 we find now that this procedure is legalized in twenty-eight states of the Union.

Dr. H. C. Henry of Petersburg, Va., presents the problem in Virginia Medical Monthly, December 1936. We quote Dr. Henry: "Modern sterilization represents an effort to meet a problem or to prevent or improve a condition.

"On December 31, 1934, there were in the state hospitals in the United States 384,860 patients. There are today in the hospitals of the United States more beds for mental patients than the combined total of those for all other conditions of every description, medical, surgical and special.

"In the State hospitals alone between 1928 and 1935 the resident population increased thirty-two per cent the number of known insane today is over three times as great as it was in 1880. Careful statistical studies made recently lead us to believe that four per cent of the present total population of the country will at some time during their lives become insane and require legal commitment and hospital care.

". It costs $246.13 a year to maintain each state hospital patient and $82,878,984.00 was spent for their maintenance in 1934, and $16,858,455.00 the same year for additional buildings and equipment.

"The picture with respect to feeble mindedness is no more reassuring. Four per cent of school children have an intelligence quotient below seventy, and six per cent of the men drafted for the National Army had an intelligence quotient below seventy. It is estimated that there are approximately 7,000,000 feeble-minded in the United States, of which fewer than 70,000 are in institutions.

"The President of the American Psychiatric Association said recently that if the increase of the past year continues, society will eventually become unable to carry the burden.

"A committee of psychiatrists, reporting recently on the subject of sterilization, listed the following diseases which it considers without doubt hereditary and in which sterilization would appear to be indicated:

1. Huntington's Chorea, hereditary optic atrophy, familial cases of Friedreich's ataxia, and certain other disabling degenerative diseases.
2. Feeble-mindedness of familial type.
3. Selected cases of dementia praecox.
4. Selected cases of manic depressive psychosis.
5. Selected cases of epilepsy.

"I must again remind you that sterilization is not a preventive for all the mental ills of mankind. Supervision and not sterilization alone is the keynote in treatment of both the defective and the mentally diseased. Sterilization is a valuable adjunct in helping to solve the problem, and, if it is made use of to the extent which we think justifiable, it cannot fail in time to elevate the general standard of the race."

Some Every Day Rectal Problems*

ALBERT R. KEITH, M.D.
Hartford

The three most common rectal complaints for which patients seek relief of their physicians;—

1. Pain, discomfort and itching.
2. Bleeding.
3. Constipation or diarrhea.

Rectal pain or discomfort may be very acute, gradually growing more severe, or it may be intermittant with long intervals of relief. It may be experienced only at the time of defecation or on the other hand it may be irregular in its attack. The principal lesions which cause anal pain are fissure, ulcer and abscess. Other factors causing anal pain are foreign bodies lodged in the crypts of Morgagni which surround the inner anal orifice or the so-called neuralgia pains of unidentified origin and called by some writers, sphincteralgia.

The sphincter anal muscle as we have learned, is a very sensitive structure, acting as it were like a watch dog at the outlet of the gut, and whenever the anus is affected with any kind of disorder the muscle goes into a spasm, rebelling against any approaching object either from within or from without. It is for this reason that it is difficult to make digital examinations in cases suffering from acute fissure, ulcers or abscess. Also the passage of fecal masses produces pain often of an excruciating type.

Fissure, either superficial or deep through the mucosa of the canal, is probably the most common cause of anal pain and discomfort, the pain coming on suddenly with the passage of a somewhat constipated stool, or sometimes following an attack of diarrhea. Unless the fissure becomes infected it will probably heal up spontaneously with only moderate attention. The use of silver nitrate in such cases, which is a very common weapon of attack, should be considered with some care and judgment.

It is probably never necessary to use the silver nitrate stick and without doubt the 10% or 20% solution will bring better results with less annoyance to the patients feelings, than stronger solutions. Applications being made directly upon the fissure, all of which may be done through the small anoscope brings the best results. Divulsion is rarely practiced, the less tearing of the mucosa and underlying muscle fibers the better, since all traumas lead to necrosis and further tissue distruction. Gradual dilatation with the finger at daily intervals or perhaps less often will, with the aid of some analgesic salve, of which there are many, produce a cure.

The fissure which becomes infected and persists, the tissues being involved down to muscle structure, usually winds up in becoming an ulcer. This pathological change is a very definite affair, and when seen through the anoscope is a perfectly round crater-like ulcer with marked edges, which may or may not be hypertrophied and thickened according to the age of the lesion. Whether or not certain types of individuals carry a tendency to ulcer formation has not been logically determined so far as I know, but we do know that all fissures do not terminate in ulcers, but that in some individuals ulcers seem to form in nearly every case of fissure.

Anatomically, culvers form on the posterior commissure of the anal canal in a majority of cases. The reason for this is obvious in that on the posterior commissure comes the greatest strain during defecation and consequently the greatest amount of trauma. At times however the ulcer may be on the anterior commissure, more particularly in women than in men, and these ulcers as a rule are much smaller and much less annoying than those in the posterior wall. Almost never do ulcers occur on the lateral walls of the canal. The position of an ulcer in the canal being known aids one in examination and makes it less annoying to the patient suffering therefrom. Pressure with the anoscope, in making examination, on the unaffected commissure is therefore more to be desired.

*Read before Tolland County Medical Association, Somers, Conn., October 20, 1936.

Pain in ulcers usually follows defecation and is usually prolonged in its existence, lasting from ½ hour to several hours and in certain cases may last all day. It is often easy to diagnose anal ulcer from the history of pain alone, as described by the patient. The attack of pain and soreness may last intermittantly over a period of weeks, only to recur. The reason for the intervals of rest is undoubtedly due to the formation of a protecting membrane covering the base of the ulcer, thereby protecting the sensitive nerve ends in the sphincter muscle.

Radical operative measures are probably the only lasting relief which can be offered to the patient suffering from this affection, this chronic anal ulcer, and excision of the ulcer in a clean fashion down to muscle tissue is to be recommended. At the time of operation the sentinel pile, so called from its station at the anal skin margin where it has become a hypertrophied fold of tissue, the result of laceration, should be removed. At the time of operation it will be noted in most cases that a papilla or small polyp exists at the anterior margin of the ulcer, caused no doubt also by the tearing of the tissue resulting in a ragged tag from which it is formed. This polyp must be removed at the time of operation in order to get a cure, otherwise when the anus is in repose the polyp may fold back into the ulcer and prevent healing. This operative procedure usually cures the ulcer, although in a small percentage of cases it may be necessary to reoperate cases which heal irregularly or become infected with a low grade organism.

The after care of such operative cases is most important if a cure is expected, keeping the operative area clean by means of sitz baths after defecation, which also gives great comfort to the patient, local cleansing of the area by the physician or nurse and internal dilatation with the finger to smooth out the folds and to prevent bridges from forming.

Rarely untreated ulcers may perforate into the deep structures surrounding the anal muscles forming abscess, in which cases we have a complication not to be desired. Obviously this situation may be prevented if the case is seen early enough.

Abscess, around the anal canal or around the rectal wall is often a source of pain or discomfort to the patient and may be so severe that sitting is impossible. The portal of entry of infection is through some abrasion in the mucosa or through some torn crypt in the canal and in a large majority of cases the bacillus coli or staphylococcus is responsible for the etiology. The position of these abscesses varies in different cases. They may be perianal, submuscular, submucous, perirectal or ischio-rectal. Commonly all abscesses are termed ischio-rectal, which terminology should be avoided in order that the abscess may be treated properly. By that is meant upon the anatomical position of the abscess depends the line of attack in operation. It is understood and positively so, that all abscesses should be operated upon and as soon after diagnosis has been made as possible. It is surprising how fast and how much destruction can be produced in a short space of time, so that by and large it is best to accept abscess formation as an emergency and to deal with it accordingly. Oftentimes however it is difficult to make a diagnosis of abscess when there is no evidence of external induration or tenderness and digital examination makes a differentiation of painful ulcer doubtful. The abscess may be small and buried beneath the posterior wall of the sphincter muscle. It may be so encapsulated that it does not spread. Nothing is easier than to be able to recognize a large red hot indurated mass on one side of the anus or filling the ischio-rectal space. The small localized abscesses which do not spread readily are the ones which take a certain amount of ingenuity to diagnose and treat. One valuable point in diagnosis to be remembered is, temperature with anal pain invariably spells abscess whether external signs exist or not and we are often surprised to find the extent of such an abscess which burrows its way into the perirectal spaces without any marked external evidence to account for its presence.

The operative treatment of abscess should be instituted early, as before said, and should be undertaken with a certain amount of preconceived plan if one is to avoid fistula as an end result, for all fistulae, so far as I know, are the end result of abscess formation, and the method by which the abscess is treated. If one is satisfied to just open an abscess which "points" on the peri-anal margin, be it near or far from the margin, the results of drainage and healing will be a fistula. If on the other hand the internal

opening or point of entrance can be determined with impunity at the time of operation for opening of the abscess, it will be possible to cure the fistula in the beginning, for all abscesses are fistulous abscesses, the completion of the picture being the external opening which is made either by spontaneous rupture of the abscess or by the incision of the surgeon's knife. It is not in all cases possible to cure the fistula at the time of the opening of the abscess, this depends entirely on the extent of the abscess and the destruction of tissue caused thereby. In a very extensive necrotic abscess it may be much safer to simply open the abscess with adequate and free drainage and to await the development of a fistula which is almost sure to come as a result, performing a fistulectomy at a later period when the drainage has nearly ceased and the patient has recovered his health. It is unnecessary for me to tell you that an abscess patient may be very sick and uncomfortable and how promptly this picture changes to one of hope and happiness with a subsidence of temperature and pain immediately following an operation of relief. All cases call for adequate drainage and wide enough incisions to ensure continued drainage. The practice of using drainage tubes and gauze packing is to be carefully considered in each individual case. After a drainage gutter is well established to the bottom of the abscess cavity it is rarely necessary to use drainage gauze except to keep the mouth of the gutter open. Packing of the entire tract tends to keep it from healing and possibly the irritation of this foreign body will cause a fibrous wall to form resulting in a chronic fistulous tract.

Pruritus Ani is another ailment for which the advice of the doctor is sought perhaps more frequently than any other anal irritation. Patients suffering from itching are distressed far beyond any evident reason in many cases, the symptoms of itching coming on at frequent intervals during the day but being more annoying at night after the individual has retired. Many of these cases are awakened during the night scratching and tearing themselves in their endeavor to obtain relief. Some cases have been reported of such a severe nature that they have been driven to suicide in their irritating distress.

A well-known proctologist of Philadelphia once said in open meeting that he would rather see Satan himself come into his office than a case of Pruritus Ani. Success in the treatment of this symptom, for it is a symptom and not a disease primarily, depends largely upon the etiology. One writer in his book on the subject would have one believe that it may be caused by anything from "athlete's foot" to a brain tumor. He describes cases caused by infected gall bladder, ovarian cysts and infected teeth and sinuses and many other etological factors which may be the annoying agent.

If, we eliminate diabetes as the cause and possibly infected teeth and sinuses, we have gone far in removing the remote possibilities. Fungi of different varieties may well be regarded as a factor and the differentiation of these may be made under the microscope, the transfer of "Athlete's foot" to the anal region by scratching may well account for some of these cases, which may be quickly relieved by the proper treatment. Foci of infection have been given the blame in many instances and when existant should be removed.

We can never hope to cure these cases in my opinion as long as anal debris exists. By that I mean whenever there is anal pathology we must remove this before attempting a cure. External skin tags, large heavy skin folds, anal cracks and fissures, fistulae, hemorrhoids, especially the ulcerated type, polyps and enlarged papillae must all be removed.

There are cases however in which no obvious anal pathology exists, those who do not suffer from diabetes or demonstrable foci of infection. To these sufferers we can offer the alcohol injection treatment, or the subcutaneous injection treatment with alcohol and novocain in oil. Persistent treatment is the watchword in these cases and if a patient is willing to continue with this form of procedure, he will eventually improve and may obtain a complete cure. X-ray exposures for the relief of this condition may produce relief in certain cases but one can safely say that it is not a cure-all and must be taken as an adjunct in the treatment.

Diet in such cases may be a great help and the elimination of spicy foods, pickles, condiments, etc., is very often indicated. Certain drugs must also be eliminated. It has recently come to our notice that phenophthalein in certain emulsified mineral oils tend to irritate the anal canal and thereby produce pruritus. So then, in the

care of this disorder we have a problem which may tax our patience and ingenuity.

The second major symptom which brings the patient to the doctor is bleeding and one which we can not over look with impunity. By far the most common source of blood in any quantity is from the large intestine or rectum. Legion are the diseases which may produce blood in the feces, whether in large or small amounts, and it may be very difficult to determine its source. Copious bleeding may accompany an anal fissure following the immediate laceration of the mucosa or the tearing of a crypt of Morgagni and from the patient's viewpoint it may be very difficult to estimate its amount. The loss of considerable red blood, if this can be reasonably estimated, usually means that the patient is afflicted with hemorrhoids, ulcer, polyps, colitis, cancer or some anal or rectal infection or growth. Mummery of London says that hemorrhage occurs in nearly 85% of internal hemorrhoids although it is not profuse in half that number. On the other hand hemorrhage may be so profuse as to cause anaemia and even shorten life.

Recent operation for the relief of cases with bleeding hemorrhoids with a hemoglobin of 35% have demonstrated the profound anaemic condition due to this cause. Without doubt a vast majority of bleeding cases have internal ulcerated hemorrhoids, but it is quite unsafe to take this as an established fact on general principles in making a diagnosis with bleeding as a sign. Multiple polyposis of the rectum and sigmoid may be diagnosed by means of the x-ray and the sigmoidoscope, best perhaps by the use of the latter, for the roentgenologist tells us that the polyps and new growths of the rectum itself are rarely demonstrable by x-ray unless the growths are very large, sufficient to cause a filling defect in the picture. In a series of twenty cases of multiple polyposis at the Mayo Clinic, seventeen had early bleeding, and in biopsy examination three were diagnosed as adenomata, two as adeno-carcinoma and one as carcinoma polyposis. This is very significant as the tendency of benign polyps to become malignant is well known. Mummery says that almost all recorded cases of multiple polyp of the colon eventually become malignant.

A solitary polyp may on the other hand cause symptoms similar to those caused by multiple polyps and bleeding may be the most prominent one. In five cases recently operated upon in our work with solitary polyps located at a point from 10 to 15 cm. from the anal margin and with bleeding as the only symptom, four showed in pathological examination cell changes which placed them on the border line of malignancy. Who can say then at what time or under what circumstances this or that polyp may degenerate into adeno carcinoma? Out of forty-two cases of polyp of the rectum or colon collected by Quen and Loudel, in twenty cancer was either present when the case was examined or developed later. In tuberculosis of the rectum or sigmoid bleeding is ordinarily slight but Cornice collected twenty-six cases of large hemorrhage in tuberculous ulcerative colitis and reported four other cases. Such cases are rather rare and would probably be seen only in advanced tuberculous conditions.

Blood is occasionally found in cases of diverticulosis but it is in slight amounts and this fact may be of great value in differentiating this disease from cancer. Given a patient with symptoms of chronic obstruction and a tumor in the left iliac fossa, passing a slight amount of blood or a considerable amount, if hemorrhoids are present, the diagnosis may be difficult. Sigmoidoscope examination should always be made in such a case and will often furnish valuable evidence. Occasionally a definite annular stricture without any break in the mucosa may be seen. The colon may be so fixed by adhesions as to prevent high examination, but this sign with the presence of a palpable tumor is important in favor of diverticulosis.

Whatever the etiology of acute or chronic idiopathic ulcerative colitis may be, and there are many authorities who differ with Burgan since he brought out his gram positive diplococcus as the specific etiologic agent, we will agree that the symptoms which attract our attention to this disease are blood streaked mucus, blood in large quantities and at frequent intervals with diarrhea.

In cancer of the rectum or lower sigmoid, bleeding may be and very often is an early symptom, owing to the fact that this part of the bowel is fixed and trauma from the passage of fecal material readily occurs, giving rise to ulceration and bleeding. At an early stage of the growth cancer should always be suspected whenever

blood is passed and it is up to each and every one of us to disprove its presence and that the blood comes definitely from another source, either immediate or remote. On the other hand blood in the stools in malignant disease is often absent or does not occur until later in the progress of the disease. Inasmuch as 85% of the cancers occur in the recto sigmoid area and the other 15% in the anus and lower rectum, it ought to be fairly easy for us to diagnose the cases early. In this lies our chief opportunity for successful treatment. When symptoms of obstruction occur the case is probably inoperable. Over three-fourths of the cases which apply to St. Marks Hospital in London are inoperable. The cause of this can not be laid at the door of the physician necessarily because the growth of the cancer of the rectum is very slow and may produce very few symptoms which may be alarming to the patient. Progressive constipation may be the only symptom which attracts and by some it is supposed to be a natural attendant on advancing years.

Any change of bowel habit in a person past middle age, with progressive constipation should be regarded with some concern, as also should diarrhea alternating with constipation. These symptoms point to tumor formation in the colon or sigmoid, whether or not accompanied by blood. Most cases of severe diarrhea seek the services of the general practitioner and any case that has progressed beyond a two weeks period should be investigated, be it caused by a baccillary infection, the amoeba of disentery, the cause ot ulcerative colitis, or any other cause. Warm stool investigation and cultures help us in determining the etiology in these cases.

Since a large majority of cases of bleeding from the rectum are caused by hemorrhoids, let us spend a few moments in regard to the treatment. Almost daily we read in the papers concerning hemorrhoids and their treatment. Like the poor, hemorrhoids are always with us, and the methods of treatment either by operation, injection or otherwise are multiple. To many people, the fear of operative methods keep them away from the doctor, not only the operation itself but the fear of unhappy after results. It is fairly well established in the minds of the public at large that incontinence often follows an operative procedure for hemorrhoids. This we know is far from the truth, and that only a very bungling hemorrhoidectomy may be followed by bad results. The anus sustains many an insult and recovers its function. To those to whom an operation is distasteful we have the injection method of treatment to offer.

Twenty-five years ago and before this time, even back to 1871, when it is supposed to have originated, the injection treatment of hemorrhoids stood in ill favor as viewed by the medical profession, due to the fact undoubtedly, that it was largely practiced by a group of so-called itinerant pile quacks, who traveled around the country treating cases in a hotel room or drug store back office, more or less haphazardly, and after a limited stay in a community getting out of town under cover of darkness, dragging a bag of gold like a thief in the night. With out doubt even with their haphazard methods, many cases were benefited, but on the other hand a wake of suffering humanity was left behind to endure the possible complications which may have arisen from misguided technique, swearing eternal damnation upon the operator and his methods. In some cases they sustained a more or less permanent complicated result involving much loss of time and money in their effort to obtain a reasonable restoration to normal conditions.

Is it any wonder then that this method of treatment has been abhored and avoided by the well meaning physician who desires to help his patient with as little loss of time and as little discomfort as possible?

In the past fifteen years or more, however, this subject has received more careful consideration by the medical profession and much has been done to analyze the cases and to classify them, in order that the proper cases may be given the advantage of this treatment thereby producing the best results.

During the progress of the world war, St. Marks hospital in London, a highly specialized rectal hospital of fifty beds, received an overflow of rectal cases, due of course to wounds received in the service. Naturally also, cases of cancer and other urgent cases had to be given preference over cases of hemorrhoids. For this reason many cases of hemorrhoids had to wait sometimes many months for treatment. Necessity being the mother of invention, forced Mr. Arthur S. Morley, who was in charge of the out-patient clinic, to treat these cases by injection methods. At first, as he says, he was sceptical about it, being misled by what other surgeons had written.

The ordinary surgical text books hardly referred to the treatment at all and then only to dismiss it as dangerous and useless. "I did not anticipate that I should meet wtih success by means of it," he says, "and that the most I hoped from it was that it might relieve my patients of their most urgent symptoms, until they could be admitted to the wards for operation." After an experience treating by injection over 5000 cases we hear Mr. Morley say, "Extended experience at St. Marks hospital and elsewhere has given me ever increasing confidence in the treatment and my results from injection did not compare unfavorably with those of my colleagues who operated on their cases," and among these colleagues may I add, were no less personages than Sir Gordon Watson, and Mr. Lockhardt Mummery. Among men of undoubted character and professional standing in this country who use this method and in a large way, may I mention E. H. Terrell of Richmond, Virginia, W. A. Fansler of Minneapolis, Louis Hirschman of Detroit, E. J. Clemans of Los Angeles, Granville Hanes of Louisville, Pruitt, Goldbacher and Yeomans of New York, together with a host of others who have written on this subject and who are practicing it daily.

I mention these advocates to show the change that has come to the minds of the modern practitioner and to show the class of physician which is using the injection method. To divide the subject at hand into parts, it seems that we have then to deal with the following subdivisions;

1. Indication for treatment, that is, selection of cases.
2. Technique of treatment, including agents employed.
3. Results of treatment, carrying with it, as it does, complications, siqualae, good and bad. Under these three headings than I will attempt to discuss this subject. It goes without saying that poorly selected cases, those unsuitable for the treatment will give only poor results. As a result of this ill advised selection we are getting a back wash of dissatisfied patients, who have had a course of injections and who because of unpleasant complications or impermanent results, are dissatisfied. These patients are coming in asking for surgical relief, convinced and rightly so that the injection method has not and will not produce permanent results. Usually it has been found that these cases were not suitable for the injection treatment or were misled by some of the statements now appearing concerning this method which the physician made, and the patient received about one-fourth the amount of treatment necessary to produce an actual cure. Stripped of the extravagant claims being made concerning it, and properly used in selected cases the results are most gratifying.

What type of hemorrhoid then is to be selected for treatment by injections? This question I will answer immediately. The type most suited for injection treatment are the internal hemorrhoids and in certain cases these should not be so treated. Internal bleeding hemorhoids, those not already thrombosed, fibrosed or ulcerated, are the ideal ones for this treatment. Certainly external tags or tabs or external thrombosed piles are not to be put in the class of selected cases. Again, internal papillae, polypi or adenomata do not fall into the class of selected cases and it is only when such mistakes are made that the results are unsatisfactory. Careful preliminary examination rules out this contraindicated pathology and keeps us out of the pits into which we may easily fall. One must be able to recognize an uncomplicated hemorrhoid, one that is not ulcerated, prolapsing, or thrombosed, before an attempt is made to treat the case by injection. However, the breadth of indication for treatment widens with experience as in all surgical work, and with more experience one finds oneself taking more liberties and getting further and further away from the dividing line, so that the degree of ulceration or the extent of the prolapse, becomes a matter of personal judgment.

Injection should be made with the hemorrhoid inside the rectum, in as much as we have ruled out the prolapsing type being ideal for injection. Perhaps it makes little difference what ingredients are used as long as solutions are non-toxic, irritating enough to produce marked induration and subsequent fibrosis but not irritating enough to produce ulceration, followed by infection necrosis and a slough. Any solution fulfiilling these specific requirements is satisfactory. Personally I have been content to use a 5% solution of Quinine and Urea as advocated by Tyrell, Fensler and others. I have felt that by using phenolized oil, we are handling an agent which is perhaps more severe in its action and which may not conform in its action to our specific require-

ments, in as much as the preparation is more difficult to prepare and handle. Operators who use phenolized oil prefer this preparation, saying that other preparations are not as safe, beneficial and gratifying in results as the phenol in oil. The men who have injected the largest number of cases according to my determination have used Q.&U. and it has been a matter of following their experience that I have adopted this agent.

Quinine and Urea apparently conform to our specific requirements in being non-toxic, except in rare instances, about one person in five hundred being susceptible to it, and then only in a mild degree, and in being irritating enough to produce marked induration and subsequent fibrosis. The amount injected is enough to distend the pile area which is usually 1 to 2 C C. As I have said it is my custom in most cases to inject one pile area at a time for if the complete ring is injected pain is usually severe and there is a possibility that the patient may not be able to continue his occupation. When only one pile is injected pain is usually slight or transient. There is a sensation of weight and fullness and there may be dull pain lasting two or three hours. Anything more than this means the injection has not been properly done.

In a large number of cases patients experience no discomfort after injection and the thing they are most aware of is that their piles cease to bleed. After a complete injection of all areas has been made digital examination shows a hard ridge along the rectal wall in the places occupied by hemorrhoids. And inspection shows them to be much smaller, the mucous membrane over them being quite leathery. Weekly injections should be continued until no further trace of the piles can be seen. This involves an average of three to four injections for each pile. Sometimes two injections will be sufficient but large piles require a large number of injections. It is important to realize that a few injections will not produce permanent results and that disappearance of symptoms alone does not mean a cure.

This treatment is not without its complications however, although they are probably no more frequent than is seen in operative methods. The subject of pain has been touched upon. It is usually transient. If it is lasting it is due to the injections being introduced too low down near the ano-rectal line between that and the so-called white line of Hilton. It is here that sensation is most acute as this area is filled with sensative nerve ends. Sensation in the rectal mucosa itself is practically nil. Resistant pain may also be due to the fact that too much solution has been injected, or that a papilla, a very sensitive body, has been inadvertantly injected. A pile may be injected and subsequently prolapse, become markedly distended and cause swelling, pain and strangulation. The treatment in such a case is obvious. It must be replaced and kept within the canal.

Soreness after injection is usually due to ulceration and sloughing due to too much solution being injected or placed too superficially. As a rule however sloughing amounts to nothing more than a very limited necrosis of the mucous membrane. It is a very undesirable complication however as it may produce pain enough to incapacitate the patient and also because it may possibly lead to secondary hemorrhage.

Hemorrhage immediately following is a relatively rare complication. Frequently after withdrawal of the needle, especially in dealing with the anterior pile, there may be a small amount of blood which may be easily controlled by pressure of a gauze swab directly introduced on to the bleeding area through the speculum. I have had only one case which caused any annoyance.

An abscess may occur following injection which may be wholly within the rectum or appear as an ordinary perianal or marginal abscess. This complication is rare however. Liver abscess has been reported and is of course metastatic from infection in the injected area. This last complication was once urged as an argument against the injection treatment but I do not believe it is more likely to follow injection than an operative procedure. I have never seen this complication neither have I seen an embolism following injection.

In regard to recurrence following the treatment for internal hemorrhoids. This is a question that an operator will always be asked — "Will the piles ever come back?" The answer to this question as I see it is this. If the case is thoroughly treated, by this I mean, if enough injections are given in each hemorrhoidal area, so that the mucosa is fairly flattened down at the end of the treatment, I would think that a small percentage of cases would return, possibly 10% to 15%. We must not, however, take the word

of the patient that he has a recurrence, when a subsequent crack, fissure or ulcer may be the cause of the so-called recurrence. The anus, like other parts of the body, is subject to more than one variety of pathology despite the mind of the ever complaining public to label everything anal as piles.

If subsequent injections, say six months to a year after the original course of treatment, are necessary to reassure the patient that his condition is favorable, he still is far ahead of the game, had he taken out time for a hospital confinement and operation.

The obvious advantages of the injection treatment of hemorrhoids are:

1. It does not involve any period if disability.
2. It does not require the use of a general or local anaesthesic.
3. It usually causes a cessation of all symptoms.
4. It saves expense to the patient.
5. It is a perfectly safe procedure and may be used with great advantage, in pregnant women and all patients with advanced cardiac or renal disease.
6. In a great majority of cases there is no after pain.

The possible complications are incomparably fewer and less serious than those after any of the usual operations for hemorrhoids.

May I again repeat that the cases which are not satisfactorily benefited by this method of treatment are those which are illogically selected and those to whom insufficient treatment has been given.

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The Editor of Northwest Medicine believes that "seldom has the medical profession been more thoroughly or more competently damned than it was April 13 by Joseph Earle Moore." The public is becoming more syphilis conscious through the press, the radio and the movies. Surgeon General Parran is making a thorough and persistent effort to educate the public. The implication has been made that we as a profession are not meeting our obligations in the care of luetics. Whether this is due to ignorance, carelessness, or lack of facilities, the task is ours to perform.

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Early Motion in Fracture Treatment*

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It is difficult to discuss any particular method of treating fractures without at least mentioning some of the general methods which under ordinary circumstances have to be combined to a certain extent to meet the requirements in any given case.

If fracture treatment is classified according to the general methods which cover all cases, it enables anyone in meeting the individual requirements of any special case to select from such a classification the special methods which will meet the case in question.

On that basis, I have found it convenient to classify fracture treatment or to discuss it under four general headings: that is, mobilization, immobilization either with or without manipulation, traction methods (that is, skin or skeletal traction), and operative procedures including all open operations either with or without internal fixation.

Briefly, the cases which may be treated either solely or chiefly by mobilization are those fractures which are either incomplete or in which there is no primary gross displacement or where this gross displacement may be corrected and in which a certain type of motion may be used without danger of displacing the fragments, or where an operative procedure may be undertaken with internal fixation and then followed by immediate or early mobilization.

Such fractures are found usually about the joints and are rarely complete fractures of the shafts of long bones. I say, "rarely"— it is only in cases where some type of internal fixation can be used that immediate or very early mobilization may be used. Also, compound fractures are almost never suitable for this type of treatment.

The selection of cases for immediate or early mobilization depends to a large extent on individual experience. Impacted fractures of certain of the extremities of the long bones, in which the position of the impacted fragment is satisfactory, are very frequently cases which can be treated with immediate mobilization.

To digress just a moment to cover the other general methods which, as we have noted, frequently have to be used in conjunction with mobilization, or in which mobilization has to be used in conjunction with other methods, we might say that immobilization either with or without manipulation is indicated in those cases in which a satisfactory approximation of the fragments may be obtained and maintained with some form of splinting. I think the vast majority of fractures may be treated satisfactorily primarily by that method.

Coming to traction, you have a group of cases of fractures of long bones, either single long bones or splintering of long bones, where the bone is splintered, either in the forearm or the leg, in which there is either comminution, or the obliquity of the fracture makes it impossible to prevent shortening by any ordinary method of splinting. In such cases, traction offers a simple and easy way of meeting the requirements of the case, either in the form of skeletal traction or skin traction.

For the fourth general method, which includes all operative procedures, it might be said that in any case where no one of the three preceding methods will adequately meet the situation an open procedure is indicated. That is not always true. There are many cases in which one or another of the previous general types of treatment might be used but where the skill of the individual and his experience with an open procedure, with the use of some type of internal fixation, makes it advisable to resort immediately to that type of treatment.

Considering all of the methods in any given case, a person is enabled to select the type of treatment which most nearly meets the requirements of that case.

*Presented before the Connecticut State Medical Society, Hartford, May 20-21, 1936.

As far as a description of immediate mobilization is concerned, it might be said that for the immediate treatment of any fracture by mobilization, it is essential that there shall be no deformity, or that deformity would not be expected to result from the type of motion which is going to be used. That motion is essentially the motion which is obtained by the action of gravity on a relaxed extremity. That is immediate mobilization.

Unless the extremity is relaxed, unless the musculature is relaxed, it is impossible to move a fracture, that is, the adjacent joint, or the extremity, without causing discomfort, if not a great deal of pain, and if there is any discomfort there is an additional spasm of the muscles which makes it impossible to apply this form of treatment at all. So that it is used generally in conjunction with sedative measures such as baking and a sedative type of massage, in order to get complete relaxation, and perhaps the first two or three treatments may consist almost essentially of this relaxing treatment to gain the patient's confidence and make it possible to institute the type of motion that we are discussing.

There is so much to be gained by eliminating or reducing a long period of immobilization that in cases where it can be used it certainly justifies itself. The changes which occur in bone as a result of disuse and immobilization are pretty generally recognized — the decalcification which is easily observable from the roentgen films, and I think it is not so generally appreciated that the soft tissues undergo just as much and more rapid change than the bone. The loss of tone and the ensuing weakness are bad enough, but it is the loss of elasticity and contractibility of the soft tissues which prolong the disability in fractures way beyond the time necessary for getting solid fixation of the fragments.

The cases which have been most successfully treated in this manner are fractures about the shoulder joint, fractures of the anterior humerus, fractures of the distal humerus into the elbow, particularly in children, fractures of the proximal end of the tibia into the knee joint, and some impacted fractures of the hip.

I think it has been doubted by a rather large number that there was any such thing as an impacted fracture of the hip but recently in the literature it has developed that quite a number have been observed by various men over the country, and I am certain in my own experience that ever so often I encounter a definitely impacted fracture of the hip in which immediate mobilization may be used.

I brought along with me today three convalescent patients in which I have used immediate mobilization, and which I thought might be interesting just for the purpose of demonstration.

The first is a patient with a complete fracture of the proximal humerus which was treated by immediate mobilization. The treatment in this particular case consisted primarily of the application of a handkerchief sling and an axillary pad and a circular bandage, that is, just to fix the extremity in a position which would inspire a little confidence on the patient's part and protect it against injury between treatments.

The day following the injury the patient was baked and massaged and motion started in the form of simply extending the elbow and allowing the extremity to hang relaxed. The day after that, a little motion was instituted by having the patient bend forward this way (indicating) after the extremity was relaxed, and just moving the body so that the arm would swing like a pendulum. Each day the amount of motion was increased until circumduction was accomplished in this manner, just by moving the body so that the arm swings in that manner.

Any motion or manipulation which causes any pain whatever, of course, defeats the treatment, because you can't get any relaxed motion unless the patient is relaxed. So that the degree of motion has to be limited entirely to the patient's tolerance.

This patient was treated in exactly the manner that I outlined. She didn't make as rapid progress as she might have because of the extremely inclement weather during January, so that she couldn't even come in for treatment. Of course, that wasn't her fault but for a matter of nearly three weeks she didn't come in. She was treated for the first three weeks and then lost that much time, which resulted in her being a little longer getting complete range of motion in that shoulder.

The next patient that I should like to demonstrate is a patient who had a fracture of the neck of the femur on the 12th day of February of this year. This is a lateral view of that fracture.

On the 18th, that is, six days after her fracture, she was treated by a form of internal fixation, by the use of a wing-nail after the type devised by Dr. Smith-Peterson. You see that fixation in both the anteroposterior and in the lateral views. The head of the femur is a little difficult to discover, but, you see, this is the fracture site here and that is the outline of the head, and you can see, in the lateral view, the nail going right down the neck of the femur and into the head.

It is now between thirteen and fourteen weeks since this accident. Would you mind walking across the floor for us or, if you can, walk right up the stairs? (Applause).

How long have you been walking?

Patient: Do you mean without crutches, Doctor?

Dr. Lindsay: No, I mean how long after your accident did you start walking?

Patient: Seven days after.

Dr. Lindsay: Seven days after your operation?

Patient: After operation, yes.

Now I should like to show a third case, a patient who ruptured the neck of her femur a little more than a year ago. The date of her fracture was February 2, 1935 and that was the condition at the time of the fracture.

This patient was treated by traction for a matter of fourteen weeks and I saw her just fourteen weeks after she was injured. I have a single film of what her fracture was like at that time. It is essentially what it was originally, except that the trochanter is just a little bit higher than it was at the time of the injury.

This patient was fixed in the same manner as the previous one. You see the position of the nail and in the lateral view you can see the nail going straight down the neck. The head is a little bit difficult to see, as it is rather difficult to get the head of the femur onto a film in the lateral view.

How long was it after you were operated on before you began to walk?

Patient: I would say about three weeks.

I just wanted to show these three cases, this one having gone fourteen weeks and starting with what might reasonably be called nonunion, and then a very recent case, one which under ordinary circumstances would still be in a plaster spica or in traction, simply to show that it is possible either with some form of internal fixation or as in the case of the fracture of the proximal humerus there to mobilize these fractures and get a return of function, and an excellent functional result without any long period of immobilization, with all the consequent loss of elasticity and contractility and delay in return of function.

DISCUSSION

DR. PAUL P. SWETT (Hartford): Mr. President, Dr. Lindsay's beautiful demonstration of the treatment of fractures by early movement is something that I can't add anything to, and I certainly wouldn't want to detract anything from. I hope nobody is laboring under a sense of confusion as to the terms "mobilization" and "immobilization." What he means, of course, is expressed by early movement in the treatment of fractures, rather than by prolonged immobilization.

This whole question has been a challenge to fracture surgeons for a great many years and I think we can take it as rather a welcome sign of an abundant state of vigorous, youthful health in fracture surgeons that the whole question of fracture treatment is in a state of flux. If it were in a static stage, if the methods were fixed, it would certainly indicate senility, and probably there would be no further programs.

I think, therefore, we should welcome all of these attempts to improve fracture treatment, and I am particularly grateful to see these splendid results that Dr. Lindsay has gotten by the treatment of fractures with motion, rather than with the prolonged immobilization, which inevitably produces extensive atrophy of bone as well as of all the other structures in the extremity, and prolonged disability.

I think, however, in our enthusiasm over this splendid demonstration we ought to issue a little word of warning. I think we ought to say that these methods of trial and error are the methods by which progress may be made, but that the methods should be undertaken only by those of sufficient skill and with adequate equipment for carrying out the methods.

I hope, therefore, that such experiments will continue, but I should like to feel that they will only be continued by people who have taken the trouble and the time to train themselves, and who have gotten themselves sufficiently equipped so they can carry out the methods with the skill which Dr. Lindsay has demonstrated.

DR. J. H. T. SWEET, Jr.. (Hartford): Mr. Chairman, I have listened to this paper with a great deal of interest.

I have used Dr. Lindsay's method in a few selected cases, but I want to stress what Dr. Swett has already said: that if you are going to use this method, for heaven's sake, go down to New Haven and learn something about it from Dr. Lindsay, himself!

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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NEWS.— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

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SUBSCRIPTIONS.— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

REPRINTS.— Reprints of papers and obituaries may be obtained from the Editor at cost.

• Editorials •

THE COMING ANNUAL MEETING

When our State Society convenes in Bridgeport on May 19 and 20 it will have completed its first year under the new secretarial triumvirate. Just how successful this plan has been may not easily be estimated. Of one thing we are certain, that the three encumbents have labored long and hard to arouse organized medicine in Connecticut to a sense of its opportunities and obligations.

There will be changes in the program as well as in accessory features of the next Annual Meeting. The Council has already approved a somewhat modified order of business for the House of Delegates, aiming to dispense with the unnecessary and the obsolete, and at the same time to emphasize the more important. A commercial exhibit, displayed under the same roof where the meetings are held, will be a new feature. Under proper control we see no reason why this innovation will not be acceptable to the membership.

For many years there has been an undercurrent of dissatisfaction with the scientific program of the Annual Meeting. Eclipsed as it has been by the Clinical Congress, and limited in its scope of speakers by ancient rules and customs, it has gradually become of little real value in the opinion of many. Only a short time ago Dr. J. H. J. Upham, President-Elect of the American Medical Association, put himself on record as strongly favoring the utilization of more local talent on the scientific programs of the State Societies. Our own experience in endeavoring to secure real scientific material from our own members has not been altogether a happy one. Due to this, and to the current dissatsifsaction with former programs, we are making an endeavor this year to present speakers of more than local fame who, we believe, have a message for all. We offer our apologies to Dr. Upham. You will have an opportunity to determine just how successful the plan may be, and we shall welcome your constructive criticism. Above all, make the effort to be present at Bridgeport and attend all the sessions in so far as possible. You can show

your officers no finer appreciation of their efforts on your behalf than by your presence. Our slogan is "Bridgeport, May 19 and 20, Both Days!"

MULTIPLE SCLEROSIS

Although a comparatively uncommon disease, the prognosis in multiple sclerosis has always been discouraging. Considerable experimental work has been done on the pathogenesis of this disease of recent years, Putnam pointing out the possibility of a vascular lesion being the cause of the sclerotic placques found to exist, these placques caused by zones of localized anoxemia. Dawson in the Second Edition of Medical Ophthalmology, London, 1925, noted that the sites of predilection for lesions of multiple sclerosis were related to the terminal ramifications of the end arteries and to the areas where much glial tissue is normally present, as in the chiasm. This explains the limitation of the lesions to the central nervous system and the particular vulnerability of the optic nerves and chiasm.

Disappointing as has been the treatment of multiple sclerosis in the past, it is interesting to note that two attacks have been suggested and some good results obtained in following each. Flothow of Seattle, Washington, in Northwest Medicine, November 1936, presents his results in eighteen cases where sympathectomy was performed. The rationale of this method of treatment is based on the fact that cervico-dorsal sympathectomy has been found to produce a permanent increase in the blood supply of the brain and upper spinal cord. This same improved vascularity and nutrition explains the remissions which occur spontaneously so often in this disease. The type of operation done involved a wide resection of the sympathetic ganglia. This author advises removal of the inferior cervical ganglia, the first two thoracic ganglia, the intermediate ganglion above, and the third and sometimes fourth thoracic ganglia below. This is best done by the anterior approach. Satisfactory results were obtained in about 75 per cent of the men and 40 per cent of the women. The difference in results in the sexes is explained only on the ground of a difference in characteristics.

Of even more interest perhaps are the results of another method of treatment reported by Duggan of New York in the September 1936 Archives of Ophthalmology. Finding retrobulbar neuritis a manifestation of multiple sclerosis and knowing that intravenous injections of sodium nitrite had worked successfully in cases of tobacco amblyopia, Duggan applied this same treatment to cases of multiple sclerosis with retrobulbar neuritis. It had formerly been believed that patients with acute retrobulbar neuritis associated with multiple sclerosis always recovered their vision without treatment. Duggan disproved this. Ten per cent sodium nitrite solution given intravenously daily produced a rapid visual improvement. Duggan found also that in addition to this improvement in vision noted in patients with multiple sclerosis who received this treatment, in some instances it seemed to prevent the occurrence of those unfortunate cases where the vision did not spontaneously return to normal. He expressed the opinion that, if cervico-dorsal sympathectomy is contemplated in the treatment of multiple sclerosis, a preliminary trial with the intensive vasodilator therapy may demonstrate whether such a procedure will be effective or even necessary. Duggan reported nine cases of retrobulbar neuritis in multiple sclerosis successfully treated.

Neither of these writers offers a sizeable series of cases, but the disease is uncommon, as already noted, and seldom is the diagnosis made advantageously early. We look for further results from these two sources offering some ray of hope to patients thus afflicted.

A DOUBLE LOSS

It is with the deepest regret that we have recently lost two honored and respected leaders in hospital administration in Hartford — Mother Ann Valencia, head of St. Francis Hospital since its establishment in 1897, and Dr. Lewis A. Sexton, Superintendent of the Hartford Hospital since 1917. Both pioneers in their field of endeavor, both widely recognized by their achievements, both possessing unfaltering determination and minds of unusual acuity, the loss to our hospitals, community and profession is immeasurable.

Mother Valencia labored unselfishly and untiringly to help build up St. Francis Hospital as it stands today,— a monument to her indomitable spirit. Those who knew her best felt she was St. Francis Hospital. The many who were

brought under her personal touch and were helped cannot be estimated. No task was too great or service too small for her attention.

Dr. Sexton's reputation as an authority on hospital management was country-wide. In recognition of this he was appointed first Chairman of National Hospital Day by former President Hoover, a day observed annually. The years since 1917 have witnessed unprecedented growth of the Hartford Hospital under his guidance. New buildings consist of the administration building added in 1917, the Woman's Building in 1922, also the Heublein Memorial, the Superintendent's residence, the Ingalls House and the Capewell X-ray building. The Avery Convalescent Hospital and the Wildwood Sanatorium also were part of his direct supervision. The community and the profession owe Dr. Sexton a great debt for the service he has rendered in the high standard of hospital service which he maintained.

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IOWA STATE SOCIETY JOURNAL ACQUIRES A NEW EDITOR

Our hearty congratulations to Dr. Lee Forrest Hill, the new Editor of the Journal of the Iowa State Medical Society. New England born and bred, a graduate of Dartmouth College and Harvard University School of Medicine, Dr. Hill has taken an active interest in scientific medicine in Des Moines, Iowa. He is a member of the Council of Polk County Medical Society and Chairman of its Committee of Child Health and Protection. He has been a frequent contributor to medical journalism and has been responsible for the Annual Critical Reviews on Tuberculosis in children, appearing in the Journal of Pediatrics between the years 1932 and 1936. Dr. Ralph B. Simmons, retiring Editor, pays Dr. Hill the following tribute: "Only personal contact can reveal the genial spirit, the seasoned judgment and the exceptional ability of the man."

To the Journal of the Iowa State Medical Society we extend our sincere wishes for a prosperous year under the guiding hand of its new leader. Its publication is one of which its Society may well be proud. We look for even greater achievement.

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A TRIBUTE TO DR. FREDERIC C. BISHOP

In the death of Dr. Frederic Courtney Bishop, president of the New Haven County Medical Association, the medical profession of this state has lost one of its members who was loved by all who knew him well. As his obituary appears elsewhere in this issue of the Journal, this is simply a brief note of appreciation by one who had been privileged to know him since the early days in college, to share with him the experiences of undergraduate days and medical school, and had continued in intimate association with him throughout his professional career. Dr. Bishop was conservative, unassuming, never of the aggressive type that exaggerates its own importance; cheerful, always dependable, one with whom friendship was lasting. We shall miss him in our professional and social gatherings and hold him in memory as one among the chosen.

C. J. Bartlett, M.D.

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DR. WRIGHT BUTLER BEAN

As we go to press we note with regret the death of Dr. W. B. Bean of Stafford Springs, a former president of the Tolland County Medical Association. Dr. Bean, 71 years old, had been ill several weeks. His life was one of service, beginning his practice in South Norwalk and later moving to Rockville and finally to Stafford Springs. We extend our sympathy to his family.

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The American Medical Association is now working in harmony with the United States Public Health Service in the interest of the public health and the public welfare in carrying out the provisions of the Social Security Act. Dr. Thomas Parran and Miss Katherine F. Lenroot, speaking before the Secretaries and the Editors of the constituent State Medical Associations at Chicago recently, requested the profession to cooperate with the Federal government in its projected work. Dr. Parran suggested that special committees be appointed in each state society to formulate a syphilis control program. Dr. Olin West, Secretary of the A. M. A., although not in sympathy with the present distribution of Federal funds, stated that he believed social security is here to stay, and whether the profession likes it or not, it is our duty to accept it, to help and cooperate in supplying leadership in carrying out the health provisions of the Act. The conference voted unanimously to approve Dr. Parran's suggestion for special committees in each state society to study, survey, and make suggestions in regard to a syphilis control program.

From the Secretary's Office

CREIGHTON BARKER, M.D.
258 Church Street New Haven
Administrative Secretary

The Council has recently approved an amendment to the By-Laws of the Society to provide for the addition of a President-Elect to the officers of the Society. This officer will become the President of the Society after having served one year as President-Elect.

An amendment has also been approved which will allow members of the House of Delegates to be nominated as candidates for elective office in the Society.

Other amendments that have been approved include — to discharge the State Committee on Medical Ethics and Deportment which has never had occasion to function since it was first appointed; and in the future the Council will serve as a Board of Review for malpractice investigations referred from county committees on Medical Ethics and Deportment. Another amendment will make it possible to elect residents of the State of Connecticut to Honorary Membership in the Society.

These amendments will be presented to the House of Delegates at its Annual Meeting in May, 1937 for discussion and action.

* * * *

Dr. Crawford Griswold is the Chairman of the Local Committee on Arrangements for the Annual Meeting of the Society to be held in Bridgeport on May 19-20, 1937. Other members of the Committee are: Dr. Halford B. Kneale, Dr. Arthur S. Griswold, Dr. Cornelius S. Conklin, Dr. Daniel Keegan.

Plans for the meeting are already well developed. There will be many out of state speakers on the program, and a Commercial Exhibit will be held for the first time in connection with the State Meeting. Clinics will be organized in each of the Bridgeport hospitals in the morning, and the Scientific Sessions and meetings of the House of Delegates will be held at the Hotel Stratfield. The Commercial Exhibit is under the direction of Mr. Thomas R. Gardiner, who has directed the exhibits for the Medical Society of the State of New York for several years.

The Secretary attended the Annual Meeting of the Connecticut Hospital Association held at the Municipal Hospital, Hartford, recently, and with the co-operation of Mr. Albert W. Buck, the President of the Association, a Joint Committee from the State Medical Society and the State Hospital Association has now been organized. The membership of this Committee is:

From The Connecticut State Medical Society: Harry B. Hanchett, M.D., *Chairman*, Torrington; Wilmar M. Allen, M.D., Hartford; H. Bertram Lambert, M.D., Bridgeport; Frederick N. Sperry, M.D., New Haven; Harold W. Wellington, M.D., New London; Edward J. Ottenheimer, M.D., Willimantic.

From The Connecticut State Hospital Association: Mr. Sidney G. Davidson, Supt., Grace Hospital, New Haven; Roy L. Leak, M.D., Med. Supt., Conn. State Hospital, Middletown; D. Allan Craig, M.D., Med. Dir. Charlotte Hungerford Hospital, Torrington; Mr. Oliver H. Bartine, Supt., Bridgeport Hospital, Bridgeport; Mr. William B. Sweeney, Supt., Windham Community Memorial Hospital, Willimantic.

Dr. Hanchett, Dr. Sperry, and Dr. Lambert also attended the meeting of the State Hospital Association in Hartford.

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Dr. Stanley H. Osborn, Hartford; Dr. Joseph I. Linde, New Haven; Dr. Raymond D. Fear, Stamford; Dr. Benjamin G. Horning, Hartford; Dr. Daniel E. Shea, Hartford; Dr. Henry J. Stettbacher, Waterbury; Dr. Maurice J. Strauss, New Haven; Dr. William A. Sunderland, Danbury; Dr. David Sussler, Norwich; Dr. Henry P. Talbot, Hartford, were all members of the Conference on venereal diseases held under the direction of the Surgeon General of the U. S. Public Health Service in Washington on December 28 and 29.

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Dr. LeRoy A. Wilkes, Executive Secretary of The Medical Society of New Jersey, spent a day in the State Office recently in an inquiry into the plan of organization of The Connecticut State Medical Society. It was a pleasure to entertain Doctor Wilkes, and the discussion of organization and administrative problems with the executives of other State Societies is always fruitful.

The tri-state Directory of physicians which is being published jointly by the Medical Society of the State of New York, The Medical Society of New Jersey, and The Connecticut State Medical Society is now available. Orders for it should be forwarded directly to the Medical Society of the State of New York, 33 West 42nd Street, New York, N. Y.

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The State Society's official automobile emblems are being rapidly distributed. If you have not obtained one they may be ordered from this office; the price is $2.00.

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This office is prepared to answer questions in regard to physicians' liability under the Social Security Act for the payment of payroll taxes for office employees.

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Special Notice

The Chairmen of the following committees please note that their annual reports should be in the Secretary's Office on or before May 1, 1937.

Ralph A. McDonnell, M.D., Chairman: Committee on Honorary Members and Degrees.

D. Chester Brown, M.D., Chairman: Committee on National Legislation.

Harry B. Hanchett, M.D., Chairman: Committee on Hospitals.

Arthur B. Dayton, M.D., Chairman: Committee on Narcotic Drug Addiction.

Edward J. Ottenheimer, M.D., Chairman: Committee on Physicians' Telephone Listings.

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COMING MEETINGS

February, 25-27, 1937. The New England Hospital Association, Hotel Statler, Boston.

March 8-11, 1937. New Orleans Post-graduate Medical Assembly.

March 30-April 2, 1937. First International Conference on Fever Therapy, College of Physicians and Surgeons, Columbia University, N. Y. C.

April 12-16, 1937. Post-graduate Institute of Philadelphia County Medical Society, Bellevue-Stratford Hotel, Philadelphia, Pa.

April 21-24, 1937. American Society for Experimental Pathology, Memphis, Tennessee.

May 19-20, 1937. The Connecticut State Medical Society, Hotel Stratfield, Bridgeport, Conn.

June 7-11, 1937. American Medical Association, Atlantic City, New Jersey.

October 25-29, 1937. Annual Clinical Congress of American College of Surgeons, Chicago, Ill.

THE LIFE EXTENSION INSTITUTE

The Life Extension Institute, a New York Corporation organized in 1914, has at last been enjoined from practicing medicine in that state. It may continue to exercise corporate powers but may not practice medicine, directly or indirectly, in any form. The corporation is permitted to maintain laboratories and employ physicians to perform such services as may be legal in connection with the operation of such laboratories. Other privileges are allowed the corporation but it cannot share the fees of its physicians for medical services rendered by them. The referee, in this case, emphasized the fact that the statute prohibiting the corporate practice serves a wholesome purpose, because the relation between a physician and his patient is and must be a personal and confidential one, which can exist only when the physician is a natural one. This is a most important decision. Considerable criticism has been directed toward this corporation ever since its organization. Originally its activities had a decidedly philanthropic character but the temptation for expansion was too great and its extension into more profitable fields may be said to be responsible for its running afoul of the fundamental law in New York State.—*Weekly Roster and Medical Digest, Phila., Pa. Nov.* 28, 1936.

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COMING EXAMINATIONS

Connecticut State Board: Basic Science, New Haven, February 13. Prerequisite to licenes examination. Address State Board of Healing Arts, 1895 Yale Station, New Haven.

National Board of Medical Examiners: Parts I and II. February 9-11; May 10-12; June 21-23; and September 13-15. Ex-Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia, Pa.

American Board of Dermatology and Syphilology: Written examination for Group B applicants will be held in various cities throughout the country, April 17. Oral examinations for Group A and B applicants will be given in Philadelphia, June 7-8. Sec., Dr. C. Guy Lane, 416 Marlborough St., Boston, Mass.

American Board of Internal Medicine: Practical or clinical examination will be given in St. Louis in April. Chairman, Dr. Walter L. Bierring, 406 Sixth Ave., Des Moines, Iowa.

American Board of Otolaryngology: Philadelphia, June 7-8. Sec., Dr. W. P. Wherry, 1500 Medical Arts Bldg., Omaha, Neb.

American Board of Radiology: Atlantic City, June 4-6. Sec., Dr. Byre R. Kirklin, Mayo Clinic, Rochester, Minn.

The Neuro-Psychiatric Institute of the Hartford Retreat

It may be helpful to the members of the medical profession of Connecticut to know something of the nature and scope of the work now being done at the Neuro-Psychiatric Institute of the Hartford Retreat, and how the facilities of the Institute may be of assistance to them in handling neuro-psychiatric problems met in their practice.

The Institute was founded, as you know, by the Connecticut State Medical Society in 1822, and is first and foremost a Connecticut institution. Special preference is given patients who are residents of this State.

During the past six years the physical plant of the Institute has been completely modernized, new buildings have been erected, biochemical, psychiatric and psychological research laboratories established, scientific equipment augmented, medical and nursing staffs generally enlarged.

In short, complete laboratory and clinical facilities are provided for the observation, care and treatment of incipient or newly developed nervous and mental disorders. At the same time broad principles of education and re-education have formed an integrated part of the therapeutics, so that now more than forty educational specialists participate in the individualized program devised for each patient.

Believing that the best in psychiatry must be based on sound physical medicine, exhaustive clinical and laboratory examinations are made on each newly admitted patient. These examinations, among other things, include complete X-ray of the chest and of the teeth, with X-ray of other parts of the body if indicated, and examination by an orthopedist, by an oculist, an ear, nose and throat man and neurologist in addition to a psychiatrist. The laboratory examinations embrace the usual clinical laboratory examinations such as blood chemistry, basal metabolism, etc. Gynecological and genito-urinary examinations are made as indicated, as is a complete serology. These examinations are appraised and are made the basis on which the individualized program of physical therapy is postulated, supplementing psychiatric treatment.

While the fundamental policies of the founders of the Institute have been carefully preserved, there has been, in the light of present-day medicine, an increasing emphasis on the preventive aspects of psychiatry, with the result that many more patients are now received before a frank psychosis has developed. Many of these patients have come for preventive treatment or have been encountering difficulties because of personality defects, while others are referred by physicians for observation and diagnosis.

The individualized program, which includes assignment of guests to certain groups in which there are similar interests and congeniality, makes the handling of preventive cases more effective.

The Board of Medical Visitors of the Institute would like the members of the medical profession of Connecticut to feel free to turn to the Institute for assistance in handling neuro-psychiatric problems.

Referring physicians are kept informed of the progress of their patient by frequent progress reports, and are encouraged to continue their contact with the patient and to cooperate in treatment during the period of hospitalization.

We believe that members of the profession would find the Institute of valuable assistance to them through the use of its observation and diagnostic facilities, if they would become fully conversant with the service available.

The administration of the Institute would be glad to have members of the profession visit the institution to learn at first-hand what is being done, and what can be done to assist them in handling neurological or psychiatric problems.

The Neuro-Psychiatric Institute of the Hartford Retreat is Connecticut's oldest hospital, having been chartered as a non-profit-making, privately endowed institution for the care of nervous and mental diseases.

BOARD OF MEDICAL VISITORS

The Neuro-Psychiatric Institute of the Hartford Retreat

George Blumer, M.D., New Haven

D. Chester Brown, M.D., Danbury

B. Austin Cheney, M.D., New Haven
James D. Gold, M.D., Bridgeport
Frederick G. Graves, M.D., Waterbury
Elias Pratt, M.D., Torrington
E. K. Root, M.D., Hartford
Nathaniel Selleck, M.D., Danbury
Walter R. Steiner, M.D., Hartford
Daniel Sullivan, M.D., New London
Stella H. Netherwood, *Secretary*

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CONNECTICUT FRACTURE COMMITTEE OF THE AMERICAN COLLEGE OF SURGEONS

For three years the American College of Surgeons through a National Fracture Committee has been endeavoring to establish Fracture Committees in each state. The membership in such fracture committees is not restricted to Fellows of the College but others who are treating fractures and are interested in the subject of fracture treatment are desired as members.

The fundamental purpose of the Fracture Committee is to see to it that fracture cases are splinted where they lie and transported to the hospital with a minimum of shock and trauma, and are cared for by the best and most modern methods throughout their convalescence.

The Connecticut Fracture Committee is well organized. It already has a number of Subcommittees to deal with various phases of the better treatment of fractures. It is desired that all those who are interested should communicate with the Chairman of the Membership Committee so as to become enrolled as members.

The following officers have been appointed: Chairman, Dr. Paul P. Swett, 4 Atwood Street, Hartford, Connecticut; Secretary, Dr. Robert M. Yergason, 50 Farmington Avenue, Hartford, Connecticut.

The Sub-committees are: Membership Committee, Chairman, Dr. Frank S. Jones, Hartford; Committee on Clinical Meetings, Chairman, Dr. Merrill K. Lindsay, New Haven; Committee on Ambulance Equipment, Chairman, Dr. Charles W. Goff, Hartford; Committee on Hospital Care and Equipment, Chairman, Dr. Addison H. Bissell, Stamford; Committee on Education and Publicity, Chairman, Dr. Dennis S. O'Connor, New Haven; Liaison Committee, Chairman, Dr. John S. Dye, Waterbury.

The last Clinical Meeting of the Committee was held in New Haven, December 9, 1936. There were seven short papers by different members on a variety of subjects promoting an active and interesting discussion by the 43 members present.

It is earnestly requested that those interested in fracture treatment and in the activities of this Committee join the same and indicate their desire to do so by reporting to Dr. Frank S. Jones, Chairman of the Membership Committee, 179 Allyn Street, Hartford, Connecticut.

Try to attend the next Clinical Meeting which probably will be held in Hartford early in March.

R. M. YERGASON, Secretary

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THE SOCIAL SECURITY PROGRAM IN THE POLIOMYELITIS EPIDEMIC

Emergency plans for additional diagnostic and nursing services to children stricken with poliomyelitis were put into operation in Tennessee early in August and in Mississippi a few weeks later. Preparations for such services were under way in Alabama in September. This project brings the combined strength of Federal, State, and local resources into action during the course of an epidemic. It was made possible through the services for crippled children provided by State agencies in cooperation with Federal agencies under the Social Security Act.

In order to locate even the most isolated cases, diagnostic clinics, in addition to those previously planned, are being held by qualified orthopedic surgeons at points accessible to remote mountain and rural areas. Nurses are being sent upon the physician's request to all afflicted children in their own homes, to apply and teach the latest recognized methods of treatment that will prevent or minimize crippling.

The 1936 epidemic affected principally the northern counties of Alabama, and the sections of Tennessee and Mississippi bordering on Alabama. The United States Public Health Service reported that from the beginning of the Epidemic (June 7) to September 25, 1936 the total number of poliomyelitis cases in these three states was 720. Of these cases, 362 were in Alabama, 258 in Mississippi, and 100 in Tennessee. Most of the persons affected were children.

—*The Child, October*, 1936.

Current Comments

ANNUAL CONFERENCE OF SECRETARIES

The Annual Conference of Secretaries and Editors of constituent State Medical Societies met at the headquarters of the American Medical Association, Chicago, November 16 and 17, 1936, with Olin West as host. Our Society was represented by the Administrative Secretary and the JOURNAL Editor. We found there an entirely renovated and practically rebuilt plant. The former dingy walls have been replaced with Indiana limestone. Two full stories have been added and the interior strikingly modernized.

The multiplicity of departments, each functioning in the interest of physicians over the entire United States, created a lasting impression. A new laboratory maintained at practically constant atmospheric conditions has recently been constructed where products may be properly tested as to their ingredients and therapeutic value. Of unusual interest is the biographical department where data is on file concerning practically every physician in the United States and most of those in Canada. Here we found much "personal" material pertaining to thousands of physicians. Complete records of hospital interns and residents, as well as information concerning pre-medical students and students now in medical schools are available.

Another department assembles the Package Libraries to be sent out on request to physicians from coast to coast. The Cooperative Medical Advertising Bureau occupies its own section. In the basement are the presses, the largest printing 96 pages at a time upon which two colors may be run simultaneously. There is also one 64 page press, and one 32 page press, as well as 4 flat bed presses, 3 Kelly presses and 3 small job presses.

The papers and discussions at the Conference dealt with such subjects as Basic Science Laws, The United States Public Health Service, The Social Security Act, and Insurance against Alleged Malpractice. At the Editors' dinner, a round table discussion was held dealing with every day journalistic problems such as the question of liquor advertisements, methods of securing advertisements, the character, scope and objectives of editorials, and the question of overemphasis of Medical Economics.

The American Medical Association is to be commended for its paternal interest in making such a conference possible. It is of great value to meet with other representatives from all parts of the country, and to derive subsequent benefits contingent upon exchange of ideas and experiences.

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TUBERCULOSIS

The death rate per 100,000 from tuberculosis in 1935 in Connecticut was 38. This disease remains the leading cause of death among young adults during the productive period of their lives. According to the September Health Bulletin of Hartford we are not taking full advantage of the scientific and professional resources available in the control of tuberculosis. We are reminded that it is a communicable disease, yet "open cases" expectorating millions of germs daily mingle freely with our population, eat in the same restaurants, use the same glasses in taverns, and sit in the same seats in theatres. Far advanced cases are living in intimate contact with young children.

In the United States registration area the colored tuberculosis death rate is from three to four times that of the white rate. Tuberculosis is an expensive disease. The State Tuberculosis Commission estimates that hospital and medical care alone in 1935 cost the citizens of Connecticut 80 cents per capita. One family has cost the city of Hartford and the State of Connecticut $15,860 for sanatorium care alone.

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RESEARCH IN CHILD NEUROLOGY

It is fitting that fortunes accumulated from certain sources should be used for the study and correction of problems whose natural habitat is these same sources. B. Altman and Company is a well known retail firm but could scarcely be

regarded as the fountain head of a philanthropy and yet when its president, Colonel Michael Friedsam, died April 7, 1931, he provided funds for the creation of the Friedsam Foundation, which was to be devoted to child health and welfare. A substantial grant was made in 1934 from this foundation to the Neurological Institute of New York City for the study of child neurology but the progress has been so encouraging and the prospects of future accomplishments so fascinating that the trustees of the fund have provided funds for the extension of this kind of a study and research beyond the confines and limitations of one institution or even one city. To accomplish this commendable objective a special council has been formed with Dr. Bernard Sachs as director. The council will consist of three neuropsychiatrists, three pediatricians, one orthopedist, and two laymen, the latter to consider problems of a social character. The council will stimulate research in child neurology and allied fields so that tphyicians and other scientists may contribute to the thorough investigation of the many problems bearing upon the care and cure of those afflicted with any of the nervous or mental disorders from birth through adolescence. The relation of such studies to child health and welfare in general is obvious.—*Weekly Roster and Medical Digest, Phila. Pa., Nov.* 1, 1936.

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ANOTHER OBSTETRICAL ANALGESIC

The Journal of the Missouri State Medical Association, October 1936, contains a preliminary report by Emmert and Goldschmidt, St. Louis, on their experience with the new analgesic sigmoidal. The advantages cited in its favor are ready solubility and absence of any need of preparation. The authors claim that sigmoidal is entirely free from danger, that it does not interfere with labor, that it shortens the duration of labor in most cases, that complete amnesia occurs in nearly 80 per cent of cases, that it is safe both in the hospital and in the home, and that it approaches more nearly the ideal analgesia in obstetrics. Almost a state of utopia for the overworked obstetrician! Our faith in this new preparation might perchance have mounted a little higher had it not appeared on the pages of a recent "throw away" journal almost as soon as the Missouri writers published their report.

PILLOW SANITIZING

A laundry company in Philadelphia, Pa., has circularized physicians in that city on the importance of the bed pillow as an influence on general health. They quote the results of tests on feathers from an uncleaned pillow made some time ago in a laboratory in Brooklyn, N. Y. These tests showed the following:

Staphylococcus albus	213 colonies
Staphylococcus aureus	180 colonies
Streptococcus fecalis	85 colonies
Micrococcus ovalis	163 colonies
Micrococcus catarrhalis	97 colonies
B. coli communior	210 colonies
B. coli communis	75 colonies
B. Aerogenes capsulatus (spore bearer)	18 colonies

Numerous colonies of saprophytic organisms and non-pathogenic molds.

Then the laundry company stated that after putting these feathers through their process of sanitizing where the feathers were subjected to a temperature of 290°F for 4 minutes no pathogenic organisms could be detected. Also, no spore-bearing organisms, and only about 65 colonies of saprophytic organisms consisting of B. subtilis could be found.

Their slogan is — Sleep in Safety and Sleep in Comfort.

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GIFT TO AMERICAN HOSPITAL ASSOCIATION

A gift of $100,000 to the American Hospital Association for the study and development of voluntary hospital insurance was announced by Edwin R. Embree, president of the Julius Rosenwald Fund, at the annual meeting of the Fund recently held in Chicago. This plan, known as group hospitalization, enables persons of moderate means to secure hospital care by payments of from $6.00 to $12.00 per year without recourse to charity.

The program of the American Hospital Association will be carried forward through a special Committee on Hospital Service of which C. Rufus Roram of Chicago becomes Executive Director. The work of the Committee on Hospital Service includes two phases: first, advice and consultation to existing plans and those being formed concerning actuarial data, benefits, methods of organization, public relations, annual subscription rates; second, relations of hospital

service plans to the medical profession, public welfare activities, State departments of insurance, private insurance companies, hospital administration and hospital accounting. This program is a continuation of the activities of the American Hospital Association since 1933.

Enrollment in group hospitalization plans is now approaching one-half million employed subscribers and dependents with more than 150,000 participating in the "three cents a day" plan for hospital care in New York City. Plans which have enrolled more than 25,000 employed persons are those in Rochester, N. Y., Cleveland, Ohio, Washington, D. C., Minneapolis and St. Paul, Minn., and Dallas, Texas. Other plans with 5,000 or more subscribers and dependents are those in New Orleans, Syracuse, St. Louis, San Antonio, Houston, Memphis, Sacramento, Newark, Charleston, and Bluefield, W. Va., Kingsport, Tenn., and a state-wide plan for North Carolina.

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JOURNAL COPYRIGHTS

The Secretaries and Editors Conference recently held at A. M. A. headquarters in Chicago voted unanimously to recommend that all state association medical journals take advantage of the Federal copyright law and, having done this, see that the provisions of the law are enforced. Plagiarizing by "throw-away" journals should be stopped in this way.

One thing at a time. We have not yet secured our permit for second class mail, thanks to the obstacles raised by the Federal Post Office Department. We intend to copyright next. Why not, as members of our State Society, stop contributing to the throw-away medico-pharmaceutical journals?

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CHICAGO AND BUFFALO HAVE GROUP HOSPITALIZATION PLANS

More than thirty hospitals will participate in a group plan which will insure a maximum of twenty-one days hospitalization to all gainfully employed persons and their dependents for a small sum per year. The Secretary of State in Illinois has issued a charter for the Hospital Service Corporation. The plan, like other similar ones, will provide all usual hospital services, including board and room, general nursing, anaesthesia, ordinary drugs, medications and dressings and necessary pathological and laboratory services. It will not include medical services. The subscriber will have a choice of hospitals and the service may be used in one or more admissions to the hospital. The corporation will pay for all services for employed persons holding a full coverage policy and will pay half of the hospital bill for dependents holding a half coverage policy. The cost of the policy will probably not be over $10.00 a year.

Buffalo, New York, has a similar plan with eight hospitals participating at a cost of $7.20 a year per individual. The charge for an employed subscriber and wife is $13.20 a year, and for an employed subscriber, wife and all children under 16 years of age, $17.40 a year. Maternity service is included.

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AMERICAN MEDICAL EDITORS AND AUTHORS ASSOCIATION

Investigation reveals little to commend this organization to the medical profession. It was formed several years ago, receiving into its fold any physician who had ever wielded a pen, even producing so little as a single case report. The organization attempted to represent the profession on economic and legislative problems. It encroached upon the functions of the American Medical Association and so generally brought disfavor upon itself.

The American Medical Editors and Authors Association has now increased its activity under a new director. It offers assistance to physicians in preparing medical papers and submitting them to journals. It offers a closer relationship with publishers. In fact, one has little to do in collecting and assimilating material for a paper if a member of this Association, it will all be turned out for one.

We add our voice to the many editors who feel the profession does not need the ready made services of such organizations. Opportunities for medical literary research are still sufficient in this country for all physicians. Our parent association through its many departments stands ready to aid its members.

PLANS FOR NEW YORK WORLD'S FAIR OF 1939

Plans for a great health center and permanent public museum of health and hygiene for the New York World's Fair of 1939 have been announced, with the formation of an advisory group representing city and national health and medical organizations.

In making the announcement, Grover Whalen, president of the Fair Corporation, said that health and medical science will be ranked as one of the most important phases of the fair. Plans for the necessary buildings and exhibits are yet to be worked out, but both the Oberlander Foundation and the Carnegie Corporation have already pledged financial aid. Other grants are expected to provide a fund for retaining the exhibits as a nucleus for the permanent museum.

The committee, of which Dr. Louis I. Dublin, will be chairman, will undertake a 5-fold project involving the establishment of a permanent museum of hygiene such as the famous German institution at Dresden.

The 5 major objectives as announced are:

1. A complete co-ordinated health and medical exhibit, illustrating for public education the results of medical research, which would furnish during the fair a nucleus for a large group of commercial exhibits of products related to health and afterwards the nucleus of a permanent institution.

2. A model health village constantly demonstrating equipment and methods in daily use by individuals, families, and communities.

3. Emphasis at every appropriate point throughout the fair of protective devices and services installed for the benefit of the visitors, which illustrate with commercial advantage the value of the device.

4. Provision for a permanent health center.

5. A strict censorship of medical products and other things sold or promoted on a health basis.

The make-up of the committee is as follows: Chairman, Dr. Louis I. Dublin; vice-chairman, Dr. James R. Reuling; and secretary, Mr. Homer N. Calver; for the City of New York, Dr. John L. Rice, Commissioner of Health and Dr. S. S. Goldwater, Commissioner of Hospitals; for medical organizations, Dr. George Baehr, New York Academy of Medicine, and Dr. James R. Reuling, American Medical Association and Queens County Medical Society; for public health, Dr. Victor Heiser, Chairman of the General Council on Medicine and Public Health; Dr. Louis I. Dublin, National Health Council; and Mr. Homer N. Calver, American Public Health Association and allied groups.

A larger general committee will be formed later to give representation to numerous organizations that may have something to contribute to the exhibits.

Secretary Calver has just returned from abroad, where he spent 8 weeks visiting health museums and expositions to seek material for inclusion in the exhibits here. He brought back more than 50 exhibits from Germany, France, and England for consideration by the fair committee.

The medical center and exhibits are being planned, it was explained by President Whalen, with the aim of presenting "the material, social, and professional equipment now available to society for its health protection and promotion, and to provide a dramatic visualization of the brilliant possibilities for a humanity fully served with these facilities."

A considerable section of the exhibit will be devoted to the early recognition of degenerative diseases, such as heart disease, cancer, nephritis and diabetes. The fact that much may be done to prolong the lives of those who suffer from these diseases should alleviate the mental strain and stimulate sufferers to avail themselves of the skill of surgeons, the benefits of roentgen-ray treatment and radium, the relief afforded by insulin, etc.

"It should be pointed out," Mr. Whalen continued, "that these proposals for the exhibit are definitely related to plans for the establishment of a permanent national museum or similar institution devoted to mass education in health, situated in New York on the fair site or elsewhere. Such an institution has abundantly demonstrated its value in Europe, and it is believed that with such a permanent goal the development of the health and medical exhibit at the World's Fair would be immeasurably facilitated." —*Penn. Med. Jour., Dec.* 1936.

Dr. Iago Galdston, Executive Secretary of the New York Academy of Medicine, recently attacked science because after giving mankind immense control over his environment and over the material world it has failed to solve the essential problems of human relation, and has even compounded and aggravated them immensely.

To quote Dr. Galdston: "I go further and charge that science has dissipated, laid ruthless waste, if not maliciously, at least ignorantly, to the cultural and moral heritage of mankind, and has left it spiritually bankrupt.

"We have eliminated certain disease plagues, but in their stead we have created others, unemployment, monotonous work, crowded cities, nasty industrial towns, devitalized, synthetic foods, 'ersatz' nurture for the mind and spirit, speed, noise, dust fumes, the mania of success; in a word, the most insane of insane worlds."

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Dr. Floyd B. Winslow of Rochester, N. Y., President of the Medical Society of the State of New York, is assailing attempts to "foist" compulsory sickness insurance in this country. Dr. Winslow, in a recent address, said: "Security for the doctor means insecurity for the patient. The advocates of these measures (compulsory sickness insurance) lure the profession with the siren song of bureaucratic jobs, assured income, security — false security. We do not want to be secure. We want to remain insecure. We want to be required to continue to give our very best to every patient, or lose out in the gentlemanly competition which exists within our ranks.

"This is an incentive that operates to our insecurity but to the security of the patient. We prefer the discipline of private practice which keeps us on our toes, to an assured income under bureaucratic control where our highest ambition is more likely to be to keep ourselves solid with the politicians who have taken over the job of running our profession.

"We want to remain free to advance ourselves in the way we do now, by service rendered to the patient, or by service rendered to the public as a whole. If William MacDougall is right, and there are people who think that a man may have been a professor in a college and still sometimes be right — collectivism as an incentive to replace individualism — would be a step backward. Our obligation would then be shifted from our shoulders and become the obligation of society as a whole. This is too great a diffusion of responsibility. Those who know the least, but who talk the most, would control."

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"STONE WALLS DO NOT A PRISON MAKE NOR IRON BARS A CAGE"

Winter is a jailer who shuts us all in from the fullest vitamin D value of sunlight. The baby becomes virtually a prisoner, in several senses: First of all, meteorologic observations prove that winter sunshine in most sections of the country averages 10 to 50 per cent less than summer sunshine. Secondly, the quality of the available sunshine is inferior due to the shorter distance of the sun from the earth altering the angle of the sun's rays. Again, the hour of the day has an important bearing: At 8:30 A.M. there is an average loss of over 31%, and at 3:30 P.M. over 21%

Furthermore, at this season, the mother is likely to bundle her baby to keep it warm, shutting out the sun from Baby's skin; and in turning the carriage away from the wind, she may also turn the child's face away from the sun.

Moreover, as Dr. Alfred F. Hess has pointed out, "it has never been determined whether the skin of individuals varies in its content of ergosterol" (synthesized by the sun's rays into vitamin D) "or, again, whether this factor is equally distributed throughout the surface of the body."

While neither Mead's Oleum Percomorphum nor Mead's Cod Liver Oil Fortified With Percomorph Liver Oil constitutes a substitute for sunshine, they do offer an effective, controllable supplement especially important because the only natural foodstuff that contains appreciable quantities of vitamin D is egg-yolk. Unlike winter sunshine, the vitamin D value of Mead's antiricketic products does not vary from day to day or from hour to hour.

Annual Meeting

Hotel Stratfield

Bridgeport

May 19 - 20

Opportunities Available for Physicians of Connecticut

in the Yale University School of Medicine and Affiliated Institutions

Any physician of good standing in the community may, on application to the head of a department in the Yale University School of Medicine, obtain permission to attend clinics, lectures, conferences, or ward rounds; or to do special work in association with the laboratories connected with the various departments. Interneships, assistant residencies, and residencies in the New Haven Hospital are also available to properly qualified persons. Some of the opportunities are listed below:

CLINICAL

Ward rounds in the New Haven Hospital, clinics, and conferences are held by the clinical departments as follows:

MEDICINE: rounds daily at 10.00 a.m. on each of the three wards and in the Metabolic Division; clinic Thursdays at 12.00 m.

SURGERY: General Surgery program Wednesdays: case conferences 8.45 to 10.15; clinic 12.00 m. to 1.00 p.m.; X-ray conferences for topics of diagnosis and therapy 4.00 to 5.00 p.m.; Ophthalmology conference with Department of Pathology second and fourth Thursdays at 4.00 p.m.; Orthopedic conference with Division of Radiology daily at 10.30 a.m., Orthopedic Seminar Tuesdays at 8.00 p.m.; Otolaryngology; clinical presentation of unusual cases at 11.00 a.m. Wednesdays, Otolaryngological clinic, Urological Division program Mondays: grand rounds at 8.30 a.m.; confernces with Division of Radiology at 9.30 a.m. and, on alternate Mondays, a pathological conference at 10.30 a.m.

PEDIATRICS: ward rounds daily by the junior staff at 9.00 and by the senior staff at 11.00 a.m.; clinic Mondays at 12.00 m.; on Wednesdays at 12.00 m. conference for staff and other physicians at which a limited number of cases are discussed.

OBSTETRICS AND GYNECOLOGY: ward daily at 9.00 a.m.; conference clinic Tuesdays, at 12.00 m.

PSYCHIATRY: ward rounds daily at 9.00 a.m.; grand rounds Wednesdays at 10.30 a.m.; clinic Fridays at 12.00 m.

PATHOLOGY: conferences Clinical Medicine - Pathology Mondays and Fridays at 4.30 p.m.. Surgical Pathology Wednesdays at 11.00 a.m., Ophthalmology- Pathology second and fourth Thursdays at 4.00 p.m.

PUBLIC HEALTH: seminars Tuesdays and Fridays at 5.00 p.m.

THE CLINIC OF CHILD DEVELOPMENT: a series of lectures and demonstrations (Pediatrics 120) dealing with mental growth and development diagnosis Wednesdays at 4.30 p.m.; also special demonstrations in connection with the Seminar on Infant Behavior, first Thursdays at 4.00 p.m.

WILLIAM WIRT WINCHESTER HOSPITAL: ward rounds Wednesdays and Fridays, 9.00 a.m. to 12.00 m.; case conferences Fridays, 11.15 a.m. to 12.30 p.m.

LECTURES. Class lectures for medical students, as well as the other class exercises, are open to all interested.

GRADUATE WORK. Properly qualified persons with B.A. or B.S. and M.D. degrees, who have served interneships and completed the work prescribed for an assistant resident, will be considered by the Graduate School as prospective candidates for the degree of Doctor of Philosophy, which usually requires three years of resident study and the completion of a thesis. The requirements for the degrees of Master of Public Health and Doctor of Public Health are described in the catalogue of the School of Medicine.

PRECLINICAL

LECTURES. Classroom lectures and laboratory courses are open to all interested. Fees are charged for laboratory courses.

SEMINARS are held weekly in Anatomy, Pathology, Pharmacology, Physiology, Physiological Chemistry, Psychobiology, and Immunology.

GRADUATE WORK. Graduate work in these subjects leads to the degree of Doctor of Philosophy. This requires three full years of graduate study and research, and candidates must have completed a four years' course of distinction in a college of high standing.

GENERAL

THE LIBRARY in Sterling Hall of Medicine. Open on weekdays 8.30 a.m. to 9.55 p.m. and on Sundays 2.00 to 9.55 p.m. Departmental collections supplement the general facilities.

YALE MEDICAL SOCIETY. Meets monthly from October to May on the second Wednesday at 8.15 p.m. Papers by members of the staff and by visiting lecturers. The programs are published in the *Yale Aniversity Bulletin.*

Other lectures by visiting scientists are also open to all interested as announced in the *Bulletin.*

NEUROLOGICAL STUDY UNIT. Meets every two weeks from October to May at 4.30 p.m. in the Auditorium, Farnam Memorial Building: second Tuesdays for the presentation of neurological reports and discussions of data; fourth Tuesdays clinical session for the presentation of cases. In so far as possible programs will be published in the *Bulletin.*

REGISTRY OF BRAIN TUMORS. The collection of some two thousand brain tumors made by Dr. Cushing has been installed in the Department of Pathology, Brady Memorial Laboratory. It is hoped that this collection will be added to from many sources. Anyone who may feel inclined to send specimens for diagnosis or may seek information of other sorts is welcome to do so and should communicate with Dr. Louise Eisenhardt.

THE CLUBROOM of Sterling Hall of Medicine offers opportunity for informal meetings daily from 4.00 to 6.00 p.m. during the fall and winter terms.

NOTABLE EXHIBITIONS, arranged in the Sterling Memorial Library throughout the year, are open to the public (see the *Bulletin*), besides other general University activities, many of which are free.

CATALOGUES of the Yale University School of Medicine or the Yale University Graduate School may be obtained from the Registrars of the respective Schools or from the Secretary of Yale University.

OBITUARIES

FREDERIC COURTNEY BISHOP, M.D.
1870 - 1936



Frederic Courtney Bishop, son of Charles Kitchal and Julia Elizabeth (Lewis) Bishop, was born November 9, 1870 at Minneapolis, Minnesota. At an early age his parents moved to Bridgeport, Connecticut. He was educated in the lic schools of Bridgeport and entered Yale College in the class of 1892. After graduation he taught in a private school in Bridgeport for one year. He entered the Yale Medical School, class of 1895. After graduation he interned at Bridgeport Hospital from July 1, 1895 to July 1, 1896 and then settled in New Haven where he began the practice of general medicine.

He soon associated himself with the field staff of the Metropolitan Life Insurance Company where by industry and conscientious attention to duty he soon won for himself an enviable reputation with the officials of this company.

On October 20, 1902, he married Gertrude May Craig. A son was born of this union, Courtney Craig Bishop, who is now resident surgeon at New York Hospital of the Cornell Medical Center. His widow, one brother, and two sisters also survive him.

He had always been a Republican, but never held any public office. He was a thirty-second degree Mason, a member of Center Congregational Church, the Graduate Club, The New Haven Medical Association and the State and National Association.

Dr. Bishop was elected president of the New Haven County Medical Association in April 1936. He was unable to preside at their meeting, held in Waterbury on October twenty-ninth, because of what appeared to be a temporary indisposition. After a couple of weeks he again assumed the duties of his profession. One month later a major attack of coronary thrombosis put him to bed where he remained until his death on December twenty-second.

Dr. Bishop loved life, loved people, loved nature in all forms. He endeared himself to family, associates and friends by some charm indefinable; seeming to desire a few things a great deal, clinging to them, becoming one of them, especially his books, all of which made him an altogether human being. Like every thoroughbred he accomplished his tasks and his memory is a benediction.

Robert E. Peck, M.D.

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JOHN ELMORE BAILEY, M.D.
1862 - 1936

Dr. John Elmore Bailey, widely known in the community as a practicing physician for over 50 years and beloved by a clientele which spread far beyond the borders of his home community, died at his home, 46 Washington Street, June 5th, 1936. Dr. Bailey was in his 75th year, having observed his 74th birthday anniversary on May 26th.

Dr. Bailey's forebears were among the original settlers in Middlefield, and the Baileyville portion of that township was named for them. The Bailey family has lived in Middletown since 1650. Dr. Bailey's late father, Alfred M. Bailey, was an inventor and manufacturer. He invented the wringer and then established a plant for its manufacture in Middlefield. Dr. Bailey was of the eighth generation of the family in this community.

The doctor's early education was gained at the district school in Middlefield. Later he attended Durham Academy and for a short time he was enrolled as a student at the Eastman Business College, Poughkeepsie, New York. After leaving there, Dr. Bailey took up teaching and held a position at Riverton, near Winsted.

Subsequently he embarked upon a medical career and in 1880 matriculated at the New York College of Physicians and Surgeons, a medical school connected with Columbia University. He remained there until 1883, then spent eighteen months at the New York Post Graduate School and Hospital. After completing his work there he practiced medicine in New York City for a year.

In September 1885, Dr. Bailey returned to Middletown. He was one of the old time physicians and the oldest active practitioner in Middletown and Middlesex County, having practiced through the horse and buggy days to the motor age.

Dr. Bailey was active in the work of organizing the Middlesex Hospital. He was a member of the original staff and performed the first four major operations in that hospital. His advice was not limited to the medical field but spread to other hospital problems.

In 1911, he established the first X-ray department in the Middlesex Hospital, devoting much time and money to it. He possessed the spirit of progress, brought great enthusiasm to every task and had a great capacity for human understanding.

Dr. Bailey was a member of the City, County and State Medical Societies. He was a Mason, a member of St. John's Lodge, No. 2, A. F. and A. M., of this city and also a member of Central Lodge, No. 12, I. O. O. F., of Middletown.

J. W. Fisher, M.D.
D. A. Nolan, M.D.
F. K. Hallock, M.D.

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ALFRED CLARK CARPENTER, M.D.
1866 - 1936

Alfred Clark Carpenter, the youngest son of Ora G. and Phoebe Carpenter, was born in Greenville, New York, September 16, 1866. His early education was developed in the small country school of that town and later in the public school and academy in the village of Port Jervis, N. Y., where his family moved when he was ten years of age.

He began the study of medicine in the office of Dr. William L. Cuddeback, of Port Jervis, and entered the medical department of the University of the City of New York in 1887, graduating with honors in 1889. He then served his interneship with Randall's Island Hospitals of New York City, filling the position as house surgeon for eighteen months. Upon completion of his interneship he joined the staff of Bellevue Hospital where he served for five years as visiting surgeon to the Out-Door poor department. Having gained considerable achievement in the field of gynaecology he was given a position as instructor to those who wished to specialize in this branch at the Post-Graduate Medical School and Hospital of New York City. At the same time he opened a private sanatorium in the city at 219 East Nineteenth Street, where he held the position as surgeon-in-chief and instructor in gynaecology. After five years service at Post-Graduate, he vacated that position to devote the remainder of his time to his sanatorium. After fifteen years of diligent service, he retired to his farm in Port Jervis in 1912. After two years of retired life, he moved to Milford, Conn., in 1914, with the intention of once again entering the professional field, but he did not resume actual practice until 1916, during the influenza epidemic at the time of the world war.

He maintained a private practice for the next four years whereupon, feeling that there was a need for professional service beyond private practice, he, with several other local physicians, was instrumental in founding the Milford Hospital, where he held the position as surgeon-in-chief until his death. This came suddenly on November 1st, 1936, from coronary thrombosis. Besides being head of the Milford Hospital, Dr. Carpenter was also vice-president of The Milford Hospital Society, and Milford school doctor. He claimed membership in Masonic organizations in the State of New York and was a thirty-second degree Mason. He was a member of Connecticut State and New Haven County Medical Societies.

He is survived by his wife, Mrs. Ada Haviland Carpenter, and a brother, Wallace Carpenter of Port Jervis.

Harry W. Stetson, M.D.

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DeRUYTER HOWLAND, M.D.
1882 - 1936

DeRuyter Howland was born June 14, 1882, in Brooklyn, N. Y., the son of Charles DeRuyter and Sarah Montague Howland.

He attended public schools in Brooklyn and received his pre-medical education at Columbia College. He was graduated from the College of Physicians & Surgeons at Columbia University with the degree of Doctor of Medicine in 1906.

Dr. Howland came to Bridgeport for his interneship at Bridgeport Hospital in 1907, and following the completion of that interneship, opened the practice of Medicine and Surgery in the Town of Stratford, in March 1908, where he continued to practice until his death, June 12, 1936.

Following the death of Dr. Lewis in 1924, Dr. Howland was appointed Health Officer for the town of Stratford, which office he held successfully until his death. He was also a member of the school board from 1915 to 1926, and expended every effort to maintain efficiency in both health and school problems, in which he had a keen interest.

Dr. Howland was a member of the American Medical Association, New York Academy of Medicine, the Connecticut State Medical Society, and the Bridgeport Medical Association. He was also connected with many fraternal and social organizations and clubs. He was a devoted member of Christ Church of Stratford.

Dr. Howland was well known in South Chatham, N. H., where he had a summer home and spent several months each year, enjoying the fishing, swimming and mountain climbing and out-door life the country affords. He had considerable ability in craft work and marked success in reproducing early period furniture and cabinet work.

He is survived by two daughters, Sally of Stratford, and Mrs. Charles Pitt, of Bridgeport, and by one grand-daughter.

Dr. Howland was a conscientious practitioner, and gained the respect, admiration and affection of his many patients through his untiring efforts to alleviate their ills and encourage and help them in their many problems by his kindness. He is missed by his many patients and his medical associates in this town.

L. Caldwell Heidger, M.D.

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JOHN F. LUBY, M.D.
1855-1936

The death of Dr. John F. Luby at the age of 81, occurred at his home, 28 Dwight Street, New Haven on May 31, 1936. He had been suffering for about three months from arterio-sclerosis and uremia.

Dr. Luby was born in New Haven, the son of William Luby, a police sergeant of New Haven, and Annie Scully Luby. After attending the public schools and graduating from the Hillhouse High School, he entered the Sheffield Scientific School, where he graduated with the class of 1876. He then studied medicine at the College of Physicians and Surgeons in New York City. After graduation in 1878 he became interne at St. Mary's Hospital in Brooklyn and later interned at St. Vincents in New York City. He then returned to New Haven and began practice in the office of Dr. Michael Barry, later opening his own office on Grand Avenue, where he remained until he moved to his present location on Dwight Street.

Dr. Luby was associated with Drs. Francis Reilly, Wm. Verdi, John Sullivan, James Flynn and Wm. Sheehan in the foundation of the Hospital of St. Raphael. He became the first president of its Medical Board, in which position he remained until his death.

He was a member and former president of the New Haven Medical Society and the New Haven County Medical Association. He was a member of the American Medical Association, the Quinnipiac Club, and the Knights of St. Patrick.

His funeral was held from St. Johns Roman Catholic Church on Davenport Avenue, and internment was in St. Bernards Cemetery. The funeral was largely attended by many relatives, friends and fraternal associates. Marching in a body also were the Sisters of Charity of St. Raphaels, the medical and surgical staffs, a large number of the nurses of the hospital, students and graduates and the internes, who acted as active pall bearers.

An editorial appreciation of the New Haven Register reads as follows: "With the death of Dr. John F. Luby there passes one of the oldest medical practitioners in New Haven and one of outstanding prominence in the profession. With more than fifty years of service in his profession, and approaching eighty years of age, Dr. Luby was energetic with his work when stricken ill three months ago.

He had a successful and honorable career as a family physician and consultant. An outstand-

ing achievement often referred to with appreciation by members of the medical profession was his part in the establishment of St. Raphaels Hospital. He was one of a small group of physicians who launched the project 29 years ago and saw it completed. Ever since, Dr. Luby's interest in the Hospital never languished. As president of the hospital board from the time St. Raphaels was established up to the time of his death he had almost direct supervision of the medical side of the institution. To him was attributed in a large measure the successful operation of the hospital."

Francis H. Reilly, M.D.

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CARL E. MUNGER, M.D.

1858 - 1936

The death of Dr. Carl E. Munger, 78, occurred aboard the S. S. Samaria in Boston harbor on the night of September 26th, 1936. He suffered from a heart attack during the voyage from Liverpool.

Dr. Munger was born April 13th, 1858, in Bergen, New York. His birthplace is misleading since he comes of an old New England family. His grandfather was Squire Walter Price Munger of Madison and an ancestor, Capt. William Seward, of Guilford, fought in the Revolution. But his father, Dr. Walter S. Munger, set up a practice in Bergen, only to move back to Connecticut, to Watertown for fifty years, and was medical officer and health officer there.

Dr. Carl Munger grew up in Watertown and in time entered Yale, completing the Sheffield Scientific School's pre-medical course in 1880. Then he enrolled in the Physicians and Surgeons college in New York, later completing special studies in Berlin and Vienna.

After his graduation from the medical school in New York and a short experience in hospitals there, Dr. Munger returned to Watertown and became his father's assistant. After a few months with his father, he moved to Waterbury and set up an office for himself.

Dr. Munger was one of the city's first specialists, devoting himself to eye, ear, nose and throat ailments. To equip himself properly Dr. Munger went abroad, the first of many sea trips he took during his lifetime which took him around the world and across the Atlantic thirty or forty times. He went first to Munich, then to Vienna and Berlin, where he studied under eminent surgeons. He returned to this country in due time and went back to practice. His connection with the Manhattan Eye, Ear, and Throat Hospital dates from 1892, and he was on the staff of the Waterbury hospital for many years.

He was a member of the following medical societies: Waterbury Medical Association, New Haven County Medical Association, Connecticut Medical Society, New York Academy of Medicine, the American Laryngological, Rhinological, and Otological Society. He was also a member of the Society of Colonial Wars, the Waterbury Club, Yale Graduates Club of New Haven, Yale Club of New York City, Continental Lodge of Masons, Eureka Chapter, R. A. M., Waterbury Council, R. & S. M., Clark Commandery, K. T., and Lafayette Consistory, S. P. R. S.

Dr. Munger is survived by one son, Ralph S. Munger, of Waterbury. He is assistant secretary of the Colonial Trust Company.

Ralph E. McDonnell, M.D.

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CHARLES DICKINSON PHELPS, M.D.

1868 - 1936

Charles Dickinson Phelps, M.D., was born in Belchertown, Mass., Nov. 29, 1868. He graduated from St. Johnsbury Academy, Vermont, in 1889, receiving his A.B. degree. The next three years he was an instructor of sciences in the Greenwich Academy. He was graduated from the College of Physicians and Surgeons, Columbia University in 1895. The next year was spent as interne at the New Haven Hospital and the following one at Sloan Maternity in New York. In 1907 he received his A.M. degree at Amherst College.

Doctor Phelps practiced medicine in New Haven, Conn., from 1897 till 1902 when he removed his office and home to West Haven, Conn., where he was in active practice until 1934. He was then forced to retire due to failing health. He had much to do with the betterment of health conditions in West Haven. He was health officer from 1902 until 1910, a member of the Board of School Visitors from 1904 until

1934, being its Chairman from 1921. He was the school physician from 1921 until 1934 and a member of the West Haven Park Commission from its inception in 1919. He initiated the work of controlling mosquitoes in West Haven during the times when town appropriations were small and hard to obtain. He personally supervised the draining that was done and always carried his tin dipper so that he could stop and look for larvae in between calls. As school physician he always sought to keep the work on a par with that of the larger cities where the appropriations were larger and the work less arduous.

On October 30, 1901, he was married to Clara Bentley Mead of Greenwich, Conn., who was also teaching at the Academy at the time. His father, Frederick Brainerd Phelps, a Congregational minister, performed the ceremony. Mrs. Phelps was always a most helpful companion and their home life was a most happy one until she was suddenly taken seriously ill early in 1936 with cavernous sinus thrombosis and died. Their union was blessed with two children, Austin Mead and Marjorie Dickinson Phelps.

Dr. Phelps' associates on the Park Commission, Harley M. Hodges and J. Frank Doolan issued the following statement:

"The death of Dr. Phelps comes as a severe loss to the town of West Haven. We have long regraded him as an ideal citizen, intensely interested in the development and welfare of his community. He was self-sacrificing in his devotion and service to the town, even though his service as a member of the Park Commission was always without compensation of any kind. His intimate knowledge of West Haven from its early days to the present time was an invaluable aid, and his plans for the future development of rest and recreational areas were always of the best. The results which followed his mosquito elimination program won the praise of the state authorities. He has left this life with respect and gratitude of all the people of West Haven."

First Selectmen Schall paid the following tribute:

"Dr. Phelps has always been considered the father of the West Haven park system. He lived for that one idea. In his death the town has lost a man that devoted practically all of his time to the furtherance and betterment of West Haven parks. His interest never lagged and we have lost a real public spirited citizen."

Dr. Phelps was a member of the Congregational Church and he was usually present at the services. His wife was for twenty years the superintendent of the primary department. He was a constant reader of medical literature and was unusually well informed upon the changes that take place in the profession from year to year. He was a general practicioner, but it was in obstetrics that he excelled. Day and night he was on the go delivering babies to rich and poor. It was mostly to the poor and most of them paid him a little when they engaged him for the next confinement.

In 1930 his health began to fail and he spent several months in bed with a very severe heart condition. When he began to get around again, he was never able to move very fast as his wind would not allow it. He would stay in bed Saturdays and Sundays so that he could go on with his duties as school physician. Meetings of the Park Commission were held at his house so he might attend. His spirit was great but his power was weak. In March of 1934 he had a hemorrhage in the brain that did not paralyze his body but that cut off the tract between the association of ideas and the speech centers. After three months he was able to talk slowly and carefully but he never regained his full powers. From time to time the hemorrhages were repeated and the recovery was less, and the last few months were spent practically in bed. Even then his spirit went on and he tried to read and arrange his time so that he might do many of the things that he had never had time for before. Fortunately, he was taken away in his sleep about eleven o'clock on the night of November 24, 1936.

Dr. Phelps was laid at rest on November 28, honored in death as in life by countless friends from every walk of life who gathered at his late home, 644 Campbell Avenue, to hear the touching eulogy of the Reverend Roy D. Boaz, pastor of the First Congregational Church, and to escort the earthly remains of a beloved citizen to the final resting place in Oak Grove Cemetery where he rests with his wife Clara.

Platt H. Rogers, M.D.

- NEWS -
from County Associations

Fairfield

Dr. Carl Gade has been elected President of the Bridgeport Medical Society for the year 1937, succeeding the retiring President, Dr. Berkley M. Parmelee. Dr. Thomas J. Roche was elected President-elect, and Dr. V. P. Calvin, Vice-president. Dr. Ellwood C. Weise and Dr. Daniel Keegan were re-elected Secretary and Treasurer, respectively.

Dr. Stuart Bowman was Chairman of the recent Community Chest campaign in Stamford. Dr. E. Everett Rowell was re-elected as one of the Stamford City Council men.

A Committee has been appointed to organize a medical library in Stamford, with funds for the purchase of medical books and leading medical and surgical journals. The library will probably be at the Stamford Hospital, and will be supported by the treasury of the City Society.

The Stamford Y. W. C. A. has been holding weekly educational meetings for members and their friends. Among the speakers have been the following: Dr. William B. Terhune, "Marriage"; Dr. Earl Adams, "The Nervous Child"; Dr. O. L. Stringfield, "The Prevention of Children's Diseases"; Dr. William H. Turnley, "Nose and Throat Ailments".

The Stamford Medical Society has organized a bowling league, and wishes to announce a challenge to any other professional group in the State. They have an average attendance of about twenty-four and bowl on Thursday afternoons.

Harold T. Oesau, M.D., has been appointed acting health officer of Stratford due to the death of Dr. Ruyter Howland, M.D.

George R. Eckert, M.D., has been appointed health officer of New Fairfield to fill the unexpired term of Nathaniel B. Selleck, Jr., M.D.

Hartford

The Neuro-psychiatric Institute and Hospital of the Hartford Retreat has filed an application for permission to erect a new building at a cost of $16,000. This building will provide for a boiler plant, a barber shop and a print shop.

Dr. Ralph E. Kendall, pathologist, was appointed by the Medical and Surgical Staff of the Newington Home for Crippled Children to fill the vacancy caused by the resignation of Dr. Wilmar M. Allen. Dr. E. Myles Standish, dermatologist was appointed to succeed the late Dr. Dwight W. Tracy.

The Newington Home has increased its services during the past year more than ever before in its history. A total of 74,045 days care was given to children from 120 communities. 450 patients were cared for free of charge at the tri-weekly clinics. The physical therapy department gave 18,894 treatments during the year, 1811 of these to out-patients. These free treatments entailed a heavy financial burden because of steadily rising costs in equipment and salaries.

Dr. Wilmar M. Allen, recently appointed Director of the Hartford Hospital, was tendered a dinner on November 5, 1936, by friends on the hospital staff. Dr. Claude W. Munger of Grasslands Hospital, New York, president of the American Hospital Association was the guest speaker. Colonel Louis R. Cheney, president of the board of directors of the hospital, made some fitting remarks. About one hundred and fifty physicians attended.

Dr. Valerian S. Michalowski of New Britain, a captain in the Medical Corps Reserve, has accepted six months active duty as camp surgeon with the Civilian Conservation Corps and has been detailed to Fort Williams, Maine.

Dr. Edwin Griswold of Glastonbury has been appointed Medical Examiner of Marlborough by Coroner Frank E. Healy. This appointment was made possible by the resignation of Dr. Lee J. Whittles from the Marlborough position. Dr. Whittles has been medical examiner for both Marlborough and Glastonbury for thirteen years. He will continue to serve Glastonbury.

Thomas C. Hodgson, M.D., has been appointed health officer of Berlin to fill the unexpired term of Matthew H. Griswold, M.D.

Dr. Thornton E. Vail of Thompsonville entertained hundreds of children, at whose arrival into the world he presided, at a Christmas party on December 23. Children between one and six years of age with their mothers were invited to attend. Each child received a gift.

Dr. Dwight J. Bernstein of Hartford, assistant police surgeon, has been appointed a resident

physician at the New York Foundling Hospital for one year commencing January 1, 1937.

The Hartford Hospital is planning alterations on its Woman's Building whereby additional maternity beds will be provided on the floor now used for out patient clinics. The latter will be transferred to another part of the hospital.

The University of Healing Arts, opened in Hartford a little more than a year ago as a school of drugless healing, suspended all instruction November 9, 1936, after State Health Commissioner Osborn informed members of its faculty that they were violating a state law.

Litchfield

Middlesex

Dr. Emily Pierson, health officer of Cromwell, is becoming a frequent lecturer on Soviet Russia. Dr. Pierson spent one year at the University of Moscow studying education and medicine and another year in travel throughout Russia observing various Soviet institutions. She presents moving pictures of schools, colleges, nurseries, churches, factories, collective farms, playgrounds, camps and sanitaria.

New Haven

New London

Frank M. Dunn, M.D., has been appointed health officer of Waterford to fill the vacancy caused by the death of Ross E. Black, M.D.

Tolland

Windham

• Abstracts •

How Pseudoarthritis and other Misfortunes Occur in Nailing Intra-Capsular Fractures of the Femur. Fritz Felsenreich. Zentralblatt fur Chirurgie, 63, 28, *Nov.* 36. *No.* 48.2843 — 58.

Four hundred cases of fractures of the neck of the femur are quoted and a careful analytical report rendered. The particulars of several are given showing the importance of position of nail, within head of femur, when the Smith-Petersen nail is used. Diagrams are used to illustrate the effect of pressure necrosis within head fragment and the ultimate loosening at fracture line. This, in turn, resulting in diminished osteosynthesis producing pseudoarthrosis, coxa varus with shortening and even greater displacement of fragments. The loosening of nail in head allows outward rotation of shaft. The torsion at nail site, within head, plus too early weight bearing, according to Felsenreich, causes nail to push thru superior portion of head with separation of fragments and non-union resulting. The author describes his own technic which calls for three assistants; one detailed to hold the leg and thigh after reduction of the fracture, and one to wield the hammer while he directs the nail over a wire placed properly with fluoroscopic control. Only a small skin incision is utilized, just large enough to pass the nail. He discourages the use of any leg holding devise and insists upon manual maintenance of position. The nail must be centered exactly and selected for length with great care. He has discarded the bone peg entirely in favor of the flanged nail and regards any study of end results that contain cases under five years since nailing as unwise.

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New Manner of Handling the Incomplete Fracture of the Neck of Femur, Adduction Type. Fritz Krauss. Zentralblatt fur Chirurgie, 63, 28, *Nov.* 36 — *No.* 48.2858 — 2860.

Krauss presents two schematic drawings illustrating the position of fragments in case of an adduction type fracture of the neck of femur. When this adduction type of fracture is converted into an abduction type, the opposing surfaces of the fragments are closely approximated and present a direct axis for the introduction of the Smith-Petersen nail. Krauss discusses the literature, especially in the German press, quite at length with special reference to the work of Pauwel, Boehler and Lange. The particular case that he quotes in detail is that of a soldier who had been treated for some time because of what was thought to be a sciatic neuralgia. X-ray examination proved the case that of an incomplete fracture, adduction type, of the neck of femur. Krauss hit upon the idea of eliminating the musculature which was producing this deformity of the thigh. These muscles, as given by him, consist of the adductors and the pectineus,

enervated by the obturator nerve. Krauss, in order to permit the abduction muscles which he lists as the sartorius, gluteus medius, gracilis, and the tensor fascia lata, to bring about abduction of the thigh, produces a paralysis of the obturator nerve by cutting down over this nerve in the gluteal region and spraying the nerve trunk with ethyl chloride for two and one-half minutes, then closing the wound. This freezing of the nerve lasts, according to his report, four to five months. A proper alignment of the fragments of the neck is then easily brought about and a Smith-Petersen nail is introduced in the usual manner. Krauss states that he does not recommend this method in all intracapsular fractures of the neck of the femur, but does suggest its trial in other cases to determine its real value.

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Contributions to the Study of Shape of Pelvis in Bilateral Congenital Dislocation of Hip. La Presse Medicale — Nov. 18, 1936 — *Jean Carderas de Kerlean.*

Kerlean shows from roentgenographic studies that the mechanical changes due to bilateral congenital dislocation of the hip are essentially atrophic in character in the majority of instances. These changes bring about an alteration in the shape of the pelvic basin which, in turn, renders subsequent delivery in such women a serious problem. He suggests that the pelvic distortion be classified according to the type of change: (1) Atrophic; (2) Simple; (3) Dystrophic; in which the degree of encroachment upon the pelvic diameters is of a proportionate degree. The obstetrician should not fear such cases but should feel confident of delivery in the atrophic and simple types, but should be forewarned in the dystrophic type.

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Ossification, the Influence of the Mineral Constituents of Bone, J. D. Bisgard — Archives of Surgery, 33, 6, 926, *Dec.* 1936.

Bisgard reports experimental work on ectopic formation of bone, using the anterior chambers of the eyes of rabbits into which various bone elements were transplanted. He advances the theory one step beyond other investigators and shows that the synthetic salts of bone, calcium carbonate, phosphate and magnesium phosphate have no influence on osteogenesis or ossification. Bone, regardless of its viability, has a favorable influence. Living bone, boiled bone and bone ash all are definitely factors positively influencing ossification favorably. Living bone was found to be of the greatest value while boiled bone to a lesser degree. Bone ash, when placed in transplants of fibrous tissue and also in epithelium from the bladder, produced bone. He believes, with Watt, that calcium, as it exists in bone, exists in a physiochemical or structural form more suitable for use in the process of ossification.

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On Normal Variations in the Cutaneous Temperature of the Extremities. P. W. Ingram, Edinburgh Medical Journal XLIII, 11, *Nov.* 1936.

A study undertaken to determine normal variations in skin temperatures during 24 hours. A thermocouple, especially designed, was applied either to distal phalanx of finger or toe and a continuous record obtained. Ingram suggests this method, in determining those cases of Raynaud's and Buerger's diseases suitable for sympathetic denervation. He believes the normal patient should show a rise in skin temperature during sleep, greater in the foot than in the hand and only slightly increased on taking food, as a rule. This vasodilatation indicates the capacity of the cutaneous vessels and comes on about thirty minutes before sleep sets in. The skin temperature should normally fall on awakening. Hot food may cause a sudden rise in skin temperature but it may also not have any effect. The rise seems to depend upon the moisture content and temperature of the air in the room.

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The Campaign Against Rheumatism. Quarterly Bulletin of the Health Organization of the League of Nations, Vol. V., No. 2, June 1936.

Jitta, of the Netherlands, acting as Chairman, suggests that acute articular rheumatism very often changes into chronic articular rheumatism and believes that the term "rheumatic affections" is a more proper designation to include all types. Schlesinger, of London, discussing the cause and prevention in childhood believes it follows an acute infection, specific in type, producing tissue inflammation. He suggests a "specific" streptococcus, but then disproves its probability. He mentions haemolytic streptococci with individual predisposition but again disposes this theory. He quotes others in stating that the "nucleo protein" fraction of the organism, part of which

is common to all types of streptococci, is the potent bacteriological factor in rheumatism. This, in turn, can produce an allergic reaction. He discards this idea on various grounds. His best thought as to the cause rests in a combination idea, as yet unproven, consisting of a dual infection, first, of a streptococcus, followed by a virus infection. Prevention consists of early recognition and an appreciation of their significance. He places "growing pains" as an early sign to be followed closely. He discourages tonsillectomy unless positively indicated and believes aspirin daily for a month after all throat infections an excellent preventative. A carefully ordered convalescence of the cardiac child is paramount. Pemberton of Philadelphia discussing the disease, in children prefers the term atrophic arthritis in acute form, called Stills disease by the English. He considers them all, essentially a disease of the heart, as the most serious aspect concerned. It affects the poorer classes most often and seems to occur in cycles from three to five years apart, most often found in colder regions, frequently with a higher incidence in the same family, more often in girls and in blondes. He believes in tonsillectomy even in the course of the disease, if necessary, but preferably later. He feels that little advance has been made in knowledge concerning acute rheumatic fever for the last 25 years, while the chronic form has been much more widely understood. He states that chiefly young adolescent adults are affected with a tapering toward midlife. Babies are rarely affected. Prodromata generally exist as fatigue and irritability. Disturbance of growth arises such as persistence of infantile proportioned hands and feet, asymmetrical development and dwarfism. Arthritis in children does not present the distressing human, medical and economic problem encountered in older persons. Weil, of Paris, holds that the most frequent cause of the chronic form is osteo-cartilaginous wear, consequent on either faulty posture or industrial fatigue, and suggests the name "microtraumatism". Danischewsky, of Russia, describes this "social" disease in great detail as found in his country. He is convinced that a great deal depends upon social environment in regard to the incidence of this disease, placing importance upon economic depressions, unemployment and "general impoverishment of the masses". He states that, in Russia, the term "rheumatic affection" is taken to mean acute and chronic rheumatism of the joints and muscles, lumbago, neuralgia and neuritis. He believes that chills and muscular exertion are principal factors in the causation of these diseases. The treatment most frequently resorted to seems to consist of brine and mud baths for the chronic forms. Kahlmeter, of Stockholm, reports statistics of incidence for Sweden, showing that chronic articular rheumatism is the third largest cause of permanent disability. It is seriously treated by the Insurance Organizations in large hospitals but those over 55 years old are not economically believed worth treating. The Swedish solution is largely that of adjusting the vocation to the level of the individual's capacity after treatment medically has been concluded. It is considered a state problem, and is handled by the Government. Van Breemen, of Amsterdam, suggests adoption of the English nomenclature and greater international co-operation.

Charles W. Goff

• Quarto Notes •

ROENTGEN INTERPRETATION

By George W. Holmes, M.D.
Clinical Professor of Roentgenology
Harvard Medical School
and Howard E. Ruggles, M.D.
Clinical Professor of Roentgenology
University of California Medical School

The fifth edition of this book, which was written to bring the subject matter up to date with the more recent advances in diagnosis and technique, is a brief survey of the field of roentgen ray diagnosis. This field is thoroughly covered, touching only momentarily upon many of the less common problems, but discussing at greater length the essentials of the more frequently encountered conditions. To compensate for this necessary incompleteness in a book of this size, there is a lengthy bibliography at the end of each chapter, which is a distinct asset and a convenient aid to one wishing for more detailed information and further data upon a subject. The book is practical and elementary, depicting the serious mistakes that can be made and have been made in misinterpreting extravenous shadows and artefact, etc., for pathology. Fractures are well discussed with many informative points

on unoin, non-union and callous formation under various conditions and circumstances. The chapter on the chest is well treated, especially the heart and great vessels. There is helpful and valuable advice on fluoroscopic technicque and exposure. There are excellent reference tables on ossification centers both in the fetus and after birth. Every chapter is full of valuable information from beginning to end, based oupn the wide experience of the authors. Although the book was written more for the student and the practitioner with an interest in x-ray diagnosis than for the roentgenologist, it is not without its merit for the latter. The edition is well written and the material well organized. The illustrations, though not complete, are instructive. It should appeal to all who have an interest in diagnostic roentgenology.

Ralph T. Ogden

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ALLERGIC DISEASES THEIR DIAGNOSIS AND TREATMENT

By Ray M. Balyeat, M.D.
Associate Professor of Medicine
University of Oklahoma Medical School
Fourth Edition — $6.00
F. A. Davis Company, Philadelphia, Pa.

"In the preparation of this edition, the author has tried to discuss the various subjects in a practical manner, offering case reports as a means of teaching methods of diagnosis and treatment. A great deal of theoretical discussion and extensive references to the literature have been purposely omitted. It has been written not for those doing special work in allergy, but primarily for the general practitioner. It is the hope of the author that it will help them to better understand the subject and that they will find the methods of diagnosis and treatment practical."

The objective of this book is so well stated in this quotation from Dr. Balyeat's preface to the fourth edition that the reviewer is left with little to add except to say that the author has been unusually successful in his endeavor. The book is what it actually was intended to be.

In a field where there is such an abundance of research and literature it is refreshing to find an author who has had the good sense not to display his erudition by compiling the innumerable and often inconsequential contributions of many investigators.

While the book is thoroughly up to date and the field of allergy is well covered, the chapters on dermatology and gastrointestinal allergy and the use of iodized oil as a therapeutic measure in intractable asthma are of special interest.

No internist or general practitioner who is alive to the frequency of these diseases in his own practice can afford to be without this book.

John C. Rowley

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DISEASES OF THE NAILS

By V. Pardo-Castello, M.D.
Dermatologist and Syphilologist
Children's Hospital, Havana, Cuba
Charles C. Thomas, Springfield, Ill. — $3.50

This, the only monograph on this subject written in English, would be valuable for that reason alone, but in addition, Dr. Pardo-Castello has covered the subject so completely and so well that he has produced an extremely valuable book. The author has arranged the many diseases of the nails according to a simple classification and has described the individual diseases so clearly and concisely as to differentiate sharply the various conditions which, in the minds of most physicians, have usually been considered as identical. Appended to the descriptions of each nail condition are practical suggestions as to therapy. There are numerous illustrations which are not only valuable aids to diagnosis, but also illustrate what the author says in the text. There are valuable appendices giving the nail conditions found in various occupations and the nail symptoms due to poisons. This book will not only be of value to the specialist, but also as a reference book for any general practitioner who wishes to do more than simply know that the nail is abnormal.

Maurice J. Strauss

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THE CLINICAL USE OF DIGITALIS

By Drew Luten, M.D.
Associate Professor of Clinical Medicine
Washington University School of Medicine
Pp. 224 — Price $3.50
Springfield, Ill. Charles C. Thomas. 1936

In this monograph of 225 pages, one of the most eminent students of digitalis and its clinical use has presented, concisely and lucidly, the most authoritative and helpful study of recent times. It is a book that could have been written by few men, for it combines in an extraordinary way the knowledge gleaned from wide reading, from animal and human experimentation, and from years of careful clinical observation. Those who are familiar with the author's vitally important and fundamental studies in this field will be prepared for a book of outstanding excellence, but even these will probably be surprised at the comprehensiveness, the authority, and the interest of this survey.

There is no aspect of the action of digitalis that is not minutely studied. All pertinent evidence is carefully and impartially presented and is shown to be almost entirely in accord. The effects of the drug on the different portions of the human heart are clearly indicated, as well as the evidence relating to its diuretic action and its effect on the blood vessels. The changing views upon the indications for administration of digitalis are fully discussed. A long chapter is devoted to the use of the drug in certain special situations, which include almost every conceivable problem that may confront the practitioner. Almost one-third of the volume is given to a consideration of the dosage and method of administration, and no aspect of these matters is omitted.

To say that this is the most satisfactory work on digitalis now available is to speak with great restraint. For those working in the cardio-vascular field it is an exciting and rewarding book; for the practitioner who has not been able to keep abreast of recent advances in the knowledge of digitalis, it should prove to be an immeasurable blessing. It is all that a monograph of this type should be:

authoritative, impartial, sufficiently comprehensive, clear, and fully conclusive. It should be required reading for every physician who prescribes digitalis.

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A DIABETIC MANUAL

By E. L. Bortz, A.B., M.D., F.A.C.P.
Associate Professor of Medicine
Graduate School of Medicine, University of Penn.

F. A. Davis Co., Phila, Pa. — $2.00

This is another of the good diabetic manuals — well and carefully written and no more tedious than any work of this type. It is written primarily for the patient and expanded to be an excellent outline for the doctor in his relation to the patient. From the patient's viewpoint it is a fairly full discourse and it forms an excellent outline for the doctor.

Its twenty-six chapters are well divided into history, etiology, symptoms and diagnosis, and then several chapters on normal nutrition, energy and diet. Administration of insulin is discussed and protamine insulin and its promise discussed as well as possible at this time. The chapter on pregnancy and diabetes does not discuss caesarian section or sterilization through othewise excellent. The chapter on complications gives an excellent outline for care during surgery. Chapter 15 discusses obesity as an unhealthy state rather than a disease and gives an excellent outline of reducing diets. Several chapters are contributed by Dr. Bortz's associates.

Dr. Walter M. Bortz has a good liberal discussion of the diabetic child as differing from the adult and as to the child's more liberal diet. He refers freely to Dr. Joslin's methods. Dr. C. F. Hellwege, a dentist, well emphasizes the need of a mouth free from infection. Arthur Rappaport outlines the care of the feet. Dr. J. Montgomery Deaver shows how the diabetic now is a candidate for elective surgery as well as any major emergency with only slight, if any, reduction in his chances of success. He emphasizes early treatment of all minor injuries and infections especially about the feet. Chapter 14 gives two extensive tables, one for differential diagnosis of coma of diabetes from other medical conditions, and the second for differential between insulin shock and coma of acidosis. He gives an unusually clear outline of the relation of glucose, insulin, sodium chloride, water, and alkali. The last 10 chapters are by Sister Maude Behrman, B.S., and present the grouping of foods as used in their clinic into groups equivalent to 3 and multiples of 3 grams of carbohydrate, and as well as in one-half cup measures. It seems a very workable method and the book is accompanied by a diet card for use of the patient. There are chapters on diabetic recipes, cost of food, and such factors of food as acid base balance, cholesterol, minerals, vitamins, and composition of alcoholic beverages. Urine testing and weight charts are included in the appendix.

As a whole, this is an excellent book for its purpose and deals only with accepted principles and also its tables of food value and composition are excellent and easily usable.

Burdeth J. Buck

CLINICAL LABORATORY METHODS

By Pauline S. Dimmitt, Ph.G.
Medical Technologist for the Stout Clinic
Sherman, Texas

Second Edition revised, (with foreword by Harry Eagle, M.D., Instructor of University in Pennsylvania School of Medicine). Cloth. Price $2.75. Pp. 193. illustrated with 44 engravings and 7 full page colored plates.

Philadelphia, F. A. Davis Company, 1936.

This is an excellent and up to date laboratory guide for the practicing physician and the student technician. It gives a clear, easily understood, yet informative and accurate description of the more important diagnostic tests now in use. The essentials of the technical procedure of at least one method of performing each of these tests is given in sufficient detail to serve as a laboratory guide. Whereas only one or two of many techniques are given, the ones selected are the simplest, most accurate, and practical which are generally accepted. Although theoretical discussions are purposely omitted, the principles underlying a test are given in brief.

Chapters on: "General Bacteriological Methods," "Preparation of Autogenous Vaccines," "Typing of Pneumococci," "Blood Chemistry," "Compliment Fixation Tests for Syphilis," "Technic of Kahn Precipitation Test," and "Blood Transfusion Tests," are included in its 28 Chapters. Numerous references to recent text books, and the current literature are found at the end of each chapter.

Lawrence P. Cogswell

——☆☆——

INTERPRETATION OF LABORATORY FINDINGS

By Raymond H. Goodale, M.D.

Pathologist to City Hospital, Worcester, Mass.
Assistant Professor of Experimental Pathology
Boston University School of Medicine, Boston, Mass.

Cloth, Price $2.25, Pp. 170
Philadelphia: F. A. Davis Company, 1936

This book gives in compact form laboratory data which the physician uses in his daily practice. It is arranged in four parts. "Part I," outlines the various body fluids and excretions, with the tests frequently used, giving the normal values, and the interpretation of abnormal values. Diseases which show abnormal values are listed, following which is the number of the page on which the disease is discussed in "Part II." In "Part II," the diseases are listed alphabetically, and the results to be expected from tests pertinent to the diagnosis of that disease are given. "Part III," is a brief discussion of the physiologic pathology of the body fluids and excreta. "Part IV," tells briefly but clearly the approved methods of collecting and preparing body fluids and excreta for laboratory tests.

This is a well prepared book, written in a clear and easily understandable style. It is well indexed so that

quick reference may be made to any of the diseases mentioned, or the tests used in their diagnosis. It is a book which any physician should find a help in his interpretation of Laboratory findings.

Lawrence P. Cogswell

——☆☆——

APPLIED DIETETICS

Sanford Blum, A.B., M.S., M.D.
Head of Department of Pediatrics
and Director of Research Laboratory
San Francisco Polyclinic Q Post-Graduate School

F. A. Davis Co., Phila, Penn., 1936 — $4.75

In the introduction the author states that besides being correct from a medical standpoint, a Dieatry should posses two other virtues: it should be of such nature that the patient can and will follow it. Toward this objective he makes some very definite progress. Time consuming measures and expensive menus, however desirable they may be, are not prescribed for those patients whom the physician knows can not or will not follow them. Strict limitations are not made, nor are there any inflexible rules to break. The diets which were successfully employed by the author during a period of twenty years offer variety and such a freedom of choice that the patient should follow them rather than transgress the usually imposed limits and thus deveive both the physician and himself. Under each of an alphabetically arranged group of disease conditions are lists of meats, vegetables, fruits, sundries, and beverages which the patient may eat and those which should be avoided. A brief review of the nature, functions, and sources of the vitamines and the practical application of them in the treatment of deficiency diseases is given. There is also a short discussion of the importance of the essential chemical elements not usually present in organic compounds. Of interest is a chapter on Dietetic Fads and Fallacies which so frequently confront the physician. The entire second part of this work is given over to a dietary for infants and children in health and disease arranged according to age and contains much of practical value.

Walter Weissenborn

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MODERN TREATMENT AND FORMULARY

Associate Professor of Pharmacology and Physiology
Philadelphia College of Pharmacy and Science

F. A. Davis Co., Phila., Pa., 1936 — $5.00

This concies compact volume is obviously intended for the busy general practitioner. The author adhers to his aim to present only that which is practical and handy in every day practice. Under an alphabetical list of disease conditions, the standard types of treatment are given as well as items of practical therapeutic value with the names of the exponents from the current literature. For these various diseases over two thousand prescriptions, written in both old and new terminology, are offered. Many of these are signed and each bears a number, together with a cross reference index which makes it easy to refer to other related sections. In addition to the medical treatments, there is a rather extensive section devoted to diets for the more common ailments which likewise is arranged alphabetically. An ample appendix includes the latest revision of the Physician's Dose Table by W. S. Scoville, Sc.D. There are sections on intravenous medications; formulae and dose tables for hypodermic treatments; formulae for fluid foods; a differential chart on eruptive contagious diseases; obstetrical measurements; some first aid and common emergency measures; symptoms and treatment for fractures, dislocations and sprains; and a chart for differential diagnoses likely to be confounded. In districts where there are foreign elemnets, the Physican's interpreter should be of value. Thi ssection contains a list of over three hundred questions and terms in French German, Italian, Spanish, and English that a practitioner could use in making examinations and leaving orders for patients who do not speak English.

Walter Weissenborn

——☆☆——

EXAMINING X-RAY FILMS

By Harry Willard Fleck, M.D.

So much attention has been devoted to produce excellent X-ray films that the progress made in this field has been really astonishing.

However, except for some improvement in the construction of the viewing box and of the stereoscope, the films are studied as thirty years ago; only occasionally we avail ourselves of the use of the magnifying or reducing lens.

Fortunately I had the opportunity of studying my films over a year using a new optical device. I am perfectly satisfied with the result.

This optical device, called X-ray Stereo-Mirror, gives a brilliant, uniformly enlarged image of a single film and of illustrations in texts and roentgenologic journals, no matter what size.

The most insignificant and trivial details of a film can not be overlooked. Every film studied in the Stereo-Mirror appears a great deal better than when looked at directly; you have the impression that the film, instead of being dull and flat, is changed as by magic into something alive. After a little practice the image of the film acquires an unmistakable appearance of relief; every hidden secret is uncovered, the difference in the various densities becomes more pronounced, and for the examination of limited areas of a large film there is nothing better than the interposition of a magnifying lens between the film and the mirror.

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size, the Stereo-Mirror gives equally good result. The image appears as much reduced as one desires, uniformly smaller, very brilliant and having a certain amount of depth.

The Stereo-Mirror embodies a new principle in optics, never studied before, by which it is possible for plane reflecting surfaces to give enlarged or reduced images free from distortion, which result cannot be accomplished by spherical reflecting surfaces.

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The Stereo-Mirror differs from the ordinary stereoscope because it is very small and portable. The two films, instead of far apart and opposite each other, are placed side by side. The superposition of the two images is perfect and the handling of the outfit very simple, following the few instructions.

Sometimes we need to compare two stereoscopic pairs taken at a certain interval to note the pathologic changes. In such case the common stereoscope is most unsatisfactory, because, after examining the first pair, by the time the other pair is adjusted properly, one forgets the visual impression of the previous examination.

The Stereo-Mirror eliminates this inconvenience by simply placing one stereoscopic pair above the other; in the mirror one will see one stereoscopic image above and another below. By shifting the vision above or below one can instantly compare and notice any difference that may exist.

Just as the X-ray negative is an indispensable help for a correct diagnosis for many pathologic conditions, so the X-ray Stereo-Mirror is valuable for a more accurate and consequently correct interpretation of single and double roentgenograms.

I believe that the sooner the roentgenologists free themselves from the aversion to study the negatives indirectly, the sooner they familiarize themselves with the Stereo-Mirror, the more satisfactory and correct their diagnostic response will be.—Bridgeport, Conn., Dec. 1936.

Annual Meeting

Hotel Stratfield
Bridgeport

MAY 19 and 20

REPORT OF TEMPORARY COMMISSION TO STUDY THE FINANCIAL RESPONSIBILITY ACT

In December 1936 the Commission appointed by Governor Cross to study the Financial Responsibility Act submitted its report. The Commission consisted of John C. Blackall, Insurance Commissioner, Michael A. Connor, Commissioner of Motor Vehicles, and Frank P. McEvoy, Judge of Superior Court.

It is very evident from the report that an effort was made to obtain as much helpful information as possible and to this end representatives of various organizations, companies, and societies were invited to attend hearings held in Hartford. We find that the following were represented at the hearings: Automobile dealers and manufacturers, the bar, civic, fraternal and religious organizations, colleges, compensation commissioners, coroners, organized medicine, insurance executives and agents, motor truck transporters, probate judges, newspapers, traffic managers, welfare bureaus, women's clubs, and representatives from New Hampshire and Massachusetts.

"From all of the information obtained by this Commission the perfect objective would seem to be a fair reasonable, workable law which would assure to every injured person reasonable compensation for injuries and expenses and require such payment by everyone responsible for such injury. There also seems to be a general opinion that the Connecticut Responsibility Act is inadequate and, while criticism of it is pronounced, only two specific suggestions for improvement have been made". These two suggestions were essentially the same and proposed that every owner or operator of an automobile, before being issued a license or registration certificate, pay for an insurance premium, this insurance to be pooled by insurance companies.

State insurance was suggested but rejected by the Commission as too great an enterprise for the present.

The final recommendations of the Commission include the setting up of a State fund, a suggestion offered by organized medicine. "We recommend that a State fund be established and that from this fund the medical, surgical, hospital, and nursing expenses be paid for every resident of Connecticut injured by an automobile upon a public highway in the State of Connecticut in a sum not exceeding three hundred dollars. We suggest the maximum of three hundred dollars but we know that in many cases the damage will exceed three hundred dollars. In order that the fund may insure the immediate and continued treatment of injured persons our suggestion is that it be administered expeditiously and without delay and, particularly, without any reference to whether there is fault or ultimate recovery on the part of the injured person. As we have previously indicated, if it were necessary to wait for a determination as to fault or liability then the injured person would be deprived of the essential, immediate and continuous treatment."

This State fund would originate in the payment by each registrant of a vehicle of a small sum based upon the number of vehicles registered in Connecticut in a given year. One of the purposes of this fund would be to assure injured persons immediate and continuous treatment. A perplexing question arises as to how the cost of administration of such a fund would be met. The fund should be broad enough to include payments of *all* medical, surgical, hospital and nursing expenses for any one injured by the operator of an automobile.

Further recommendations of the Commission follow:—

"Such bill ought to contain a provision that the injuring motorist be required to compensate the fund for the amount paid by it on behalf of the injured person and that, on failure of the injuring motorist to compensate the fund that the license or registration — or both — of the motorist and his vehicle should be suspended and, in the event of his continued failure for a definite period of time to compensate the fund then that license or registration certificate — or both — should be cancelled and that the plates should be taken away from the injuring motorist.

"The amount of money so paid from the State fund should be returned to the State fund by the injuring motorist before any payment is made to the person for whose benefit the expenditure was made from the State fund.

"We do not submit a draft of such bill as we realize there are many elements upon which reasonable men may not agree. We are entirely conscious of the intent of the legislature in appointing this committee and, if a legislative committee deems it advisable to confer with us about such a bill we will be very glad to render such services as lie within our power."

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Annual Meeting, Thursday, April 29, at New Haven Medical Society Building, New Haven.

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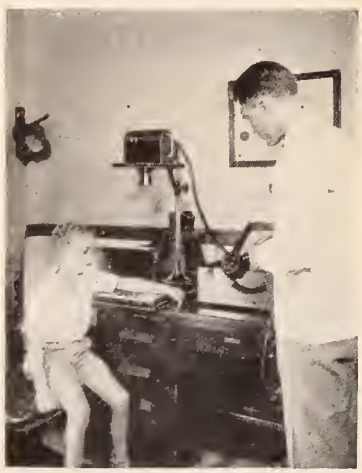
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References: Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott; Marriott, Infant Nutrition, Mosby; McClean & Fales, Scientific Feeding in Infancy, Lea & Febiger.

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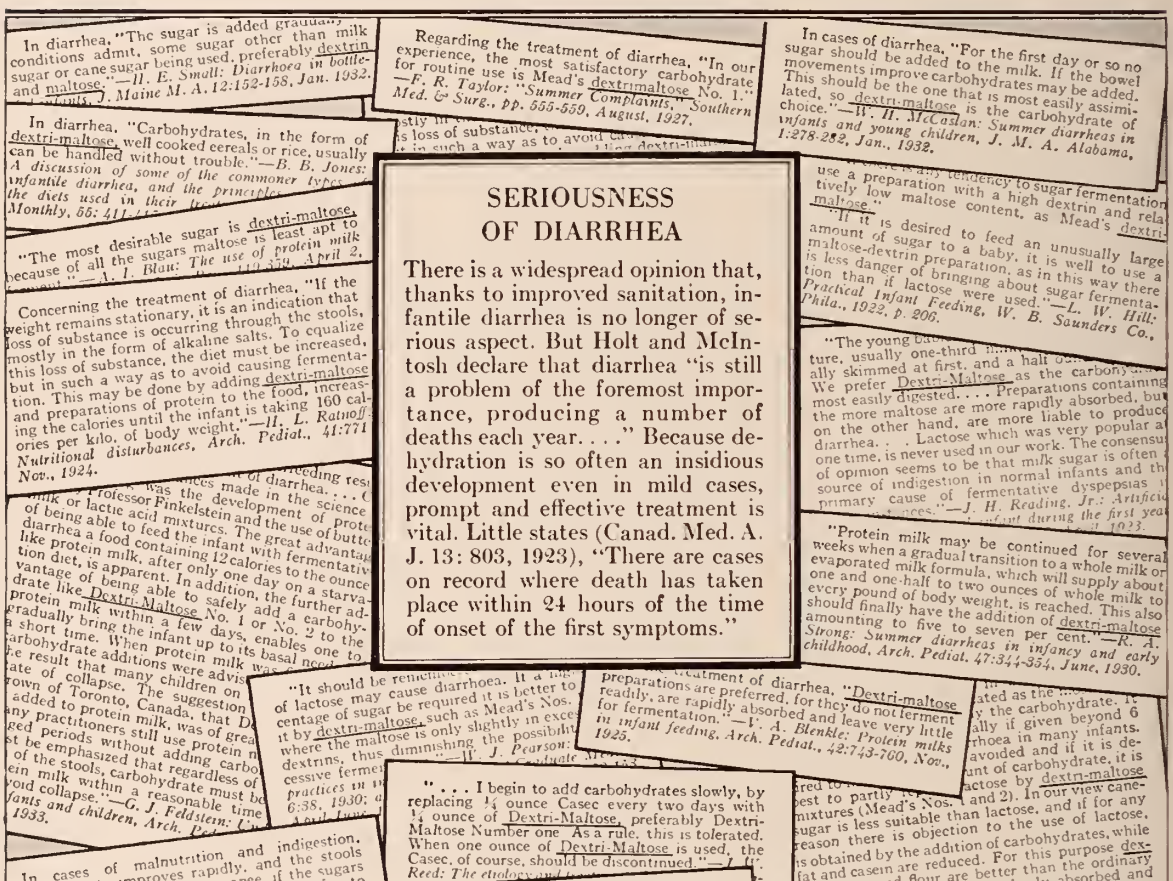
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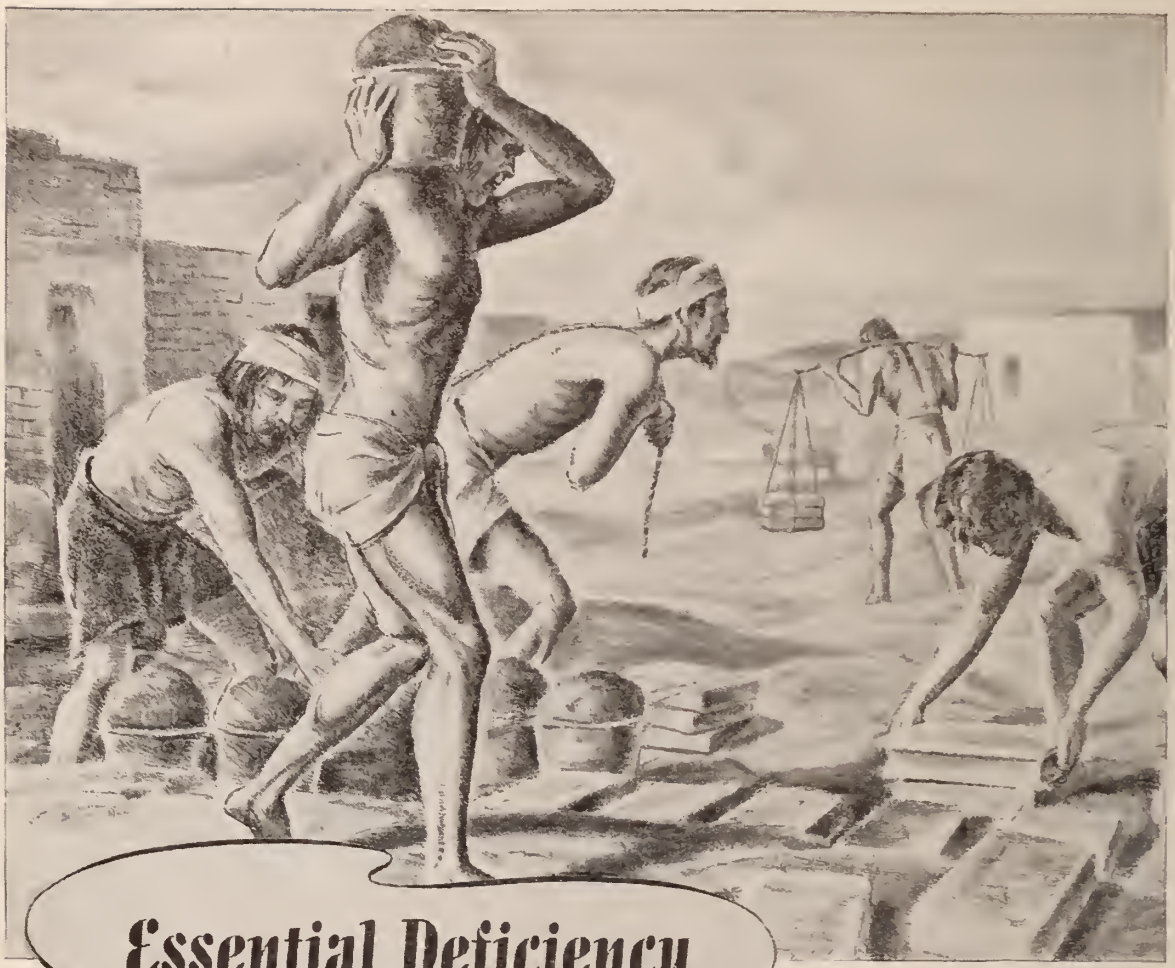
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VOL. I. MAY, 1937 NO. 4

Foreign Bodies in the Food and Air Passages*

Resume of Sixty-Two Cases Including one of Special Interest

NORTON CANFIELD, M.D.
New Haven

At one time a source of great despair to the patient and the physician, foreign bodies now lodged in the food and air passages beyond the reach of the patient himself are usually removed with favorable results. Those which cause the most alarming symptoms are at or just below the cricopharyngeus muscle in the esophagus, and in or below the larynx in the airway. However, the one case which is reported here in some detail was due to what is usually considered a very benign foreign body which apparently penetrated the food passage in the hypopharynx.

Gould[1] reported some amazing cases which included descriptions of ingenious methods of removal before the development of the modern peroral instruments. Trypsin has been used to digest a piece of meat caught in the esophagus. A feather has been used to irritate the trachea through a fistula to induce violent coughing which expelled a foreign object. Needles have migrated from the esophagus into various organs and tissues including the heart muscle. A grain of wheat has come through the skin in the axilla and another was found in an abscess of the back. Pope Adrian IV is reported to have died from the entrance of a fly into his respiratory passage. These are two cases mentioned "in which children playing with toy balloons which they inflated with their breaths, have, by inspiration, reversed them and drawn the rubber of the balloon into the glottis causing death."

Latimer[2] has reported a case of a radish twice the size of the larynx lodged in the upper esophagus of a Mongolian Idiot. Endoscopy re-

*From the Division of Otolaryngology, Department of Surgery, Yale University School of Medicine.

(1) Gould, George M. and Pyle, Walter L.: Anomalies and Curosities of Medicine. W. B. Saunders & Co. 1901.
(2) Latimer, Marvin L. Personal Communication.

vealed a tumor mass but no foreign body. At autopsy following broncho-pneumonia, the radish was not seen until the esophagus was split, so severe was the surrounding soft tissue swelling.

Our present series is classified as to location—

No.	*Location*	*Length of Sojourn*	*Result*
15	Nose	Two hours to several years	All recovered
17	Pharynx	One hour to seven days	All recovered
19	Esophagus	Two hours to seventeen days	All recovered
1	Trachea	Four hours	Recovered
9	Bronchi	One hour to eleven months	All recovered
1	Neck tissues	Ten days (estimated)	Died

Foreign bodies in the nose included two rhinoliths (multiple in one case), five beads, one wad of tinfoil, one piece of rubber eraser, one shoe button, one head of timothy hay, one bean, one piece of red crayon and two pieces of pencil. These all caused irritation, and if the sojourn was more than a few days, suppuration occurred. The two rhinoliths were associated with purulent rhinorrhea for many months, probably years. Another case, not in this series, but under my observation was one in which positive virulent diphtheria bacilli were cultured from the nose of a four year old child for seven weeks. Nasal inspection revealed a shoe button which was removed. The bacilli disappeared within one week. Persistent purulent rhinorrhea, in any case, may be due to a foreign body.

The pharynx is the common passage for food and air. Foreign bodies lodged in this location seldom effect the respiration but do cause very annoying symptoms. Very small objects lodged in a tonsil crypt or in a depression at the side of the tongue are as disagreeable as a minute foreign body on the occular conjunctiva. In this region small things are very difficult to see. Shreds of mucous glisten and appear as pieces of bone. Repeated examinations are frequently necessary. Our group in this location includes seven pieces of fish bone and part of a tomato stem found in the tonsil crypts. One of these pieces was only three millimeters in length. We also removed three safety pins, two opened and one closed from infants under one year, two fish bones and two chicken bones from the hypopharnyx, a piece of grass from the glosso-epiglottic recess, pieces of spinach caught in the lingual tonsil. The especially interesting case reported below may fall in this group.

The tracheal lumen is larger than either the glottis or the main bronchi. Hence, foreign bodies in this location present variable signs or none at all. The primary spasm of coughing is soon overcome and the object may be at any level. It may be just below the vocal cords and cause dysphonia, it may be at either bronchial opening causing obstruction to the passage of air, or it may be loose and lie in the trachea without evidence of its presence. When radiolucent it may escape detection especially if the patient is resting quietly in the recumbent position. Repeated stethescopic examination and careful notation of the excursion of air is most important. A slapping sound is occasionally heard as the object hits the vocal cords or the carina. The most important finding, however, is change in the signs due obviously to change in position of the offending substance. One such case, in which the child aspirated into his trachea half of a large peanut presented all the variations mentioned. Tracheoscopy is indicated if a foreign body is even suspected.

In the bronchi nine cases are cited. One tack, half a peanut, a piece of beef bone, a pencil top, a piece of pickle, grass roots, a mass of grape skins, a cinder and a ball bearing have been removed. Here the unsuspected foreign body may cause much embarrassment. A negative history of aspiration cannot be considered as evidence enough to refuse bronchoscopy. The case from which grass roots were removed was suspected of empyema even to the extent of inspection of the pleural cavity through the chest wall. Bronchoscopy revealed the roots rolled into a mass in the left main bronchus. Recovery was uneventful. In another, what appeared to be grape skins was removed from the left main bronchus in a woman suspected of having a lung tumor. In one case a piece of beef bone had lodged in the right main bronchus for eleven months. Although in this instance the patient insisted that a bone had been "swallowed" (aspirated), bronchoscopy was postponed because the bone was not seen on the X-ray film. The shadow of the bone was obscured by that of the mediastinum. The cough quickly disappeared after removal. The fine traveculae of the bone remained intact. Of this group of nine only four of the foreign bodies were radiopaque. Cough,

atelectasis, emphysema and asymmetry of the chest signs indicated bronchoscopy in the other cases.

From the esophagus we have removed seven pieces of chicken bone, two pieces of pork bone, two thumb tacks, four coins (two one-cent pieces from one, one one-cent piece from another and a five-cent piece from a third), one open safety pin, two fish bones, one dried prune and half of a split pea. Six of these cases were metal objects easily located by the X-ray. Some of the bones cast an appreciable shadow but many do not. The use of a thick barium mixture will often result in a portion of the substance clinging to the foreign body, thus making the X-ray and the fluoroscopic examinations more valuable. The folds of the esophagus will sometimes hide a foreign body and it may be missed both by X-ray and endoscopy. The split pea which passes easily through the normal esophagus was caught at the level of an esophageal cicatricial contraction.

Since many of the foreign bodies recovered from the esophagus have been very sharp and because of the evidence of injury to the esophageal wall seen at the time of removal, I have thought that some of these had already penetrated the esophagus. However, no complications have followed in any of these patients. Localized traumatic esophagitis always exists for several days following removal, but the sense of obstruction and the sharp pain quickly disappear. How many foreign bodies have penetrated the esophageal wall and have lodged in other tissues, I cannot state. However, we have examined fourteen esophagi with history of foreign body delay during deglutition without finding evidence of any abnormality. Most of these, I suspect, were cases in which the object passed into the stomach leaving a localized esophagitis which caused the symptoms. None of these patients to our knowledge has developed a complication.

Our very unusual case which deserves more complete report is that of a twenty-seven year old farmer who was first seen at the New Haven Dispensary July 16, 1935, twelve days after having aspirated a piece of hay into his left tonsillar region. There was some swelling in the tissues of the hypopharynx but this had been progressively disappearing during the previous two days. There was no cervical tenderness and mirror examination revealed no foreign body.

Seven days later the patient entered the New Haven Hospital complaining of chills and fever and a swelling of the left neck. Examination revealed a very sick adult with a fever of 104.8 degrees F., pulse rate of 110 per minute and respiratory rate of 32 per minute. There was a soft swelling of the left neck above the thyroid cartilage. Two days after admission endoscopic examination of the pharynx and the esophagus revealed no foreign body or localized region of inflammation. Exploration of a discrete mass in the left neck revealed a thrombosis of the external jugular vein. The patient rapidly became more toxic, broncho-pneumonia ensued, high fever was maintained and he expired in spite of intensive supportive treatment eight days after admission to the hospital.

Post mortem examination revealed various pyogenic mycro-organisms in the parenchymatous organs including the streptococcus viridans, the bacillus proteus, the bacillus welchi, and an unidentified gram positive bacillus. In the tissues of the left neck a piece of hay (see illustration) was found. There was a small amount of pus in the deep tissues of the left neck, an organizing thrombophlebitis of the left external jugular vein, infected emboli in the pulmonary vessels, and left pulmonary abscesses.



Fragment of Hay Removed from Cervical Tissues.

SUMMARY

1. Sixty-two cases of foreign bodies in the air and food passages are summarized.

2. With one exception all of this series were removed without external operation.

3. In no case of which we are aware where foreign body was suspected, examined for and not found did the patient suffer any ill effects from the examination.

4. In no case was the endoscopic procedure the cause of any untoward result.

5. One intensely interesting case in which an apparantly benign foreign body caused death is reported.

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AMERICAN MEDICAL GOLFERS PLAY IN ATLANTIC CITY, MONDAY, JUNE 7, 1937

The American Medical Golfing Association will hold its twenty-third annual tournament at beautiful Seaview Country Club, Atlantic City, New Jersey, on Monday, June 7, 1937.

Seventy Trophies and Prizes

Thirty-six holes of golf will be played in competition for the seventy trophies and prizes in the nine events. Trophies will be awarded for the Association Championship, thirty-six holes gross, The Will Walter Trophy; the Association Handicap Championship, thirty-six holes net, The Detroit Trophy; the Championship Flight, First Gross, thirty-six holes, The St. Louis Trophy; the Championship Flight, First Net, thirty-six holes, The President's Trophy; the Eighteen Hole Championship, The Golden State Trophy; the Eighteen Hole Handicap Championship, The Ben Thomas Trophy; the Maturity Event, limited to Fellows over 60 years of age, The Minneapolis Trophy; the Oldguard Championship, limited to competition of past presidents, The Wendell Phillips Trophy; and the Kickers Handicap, The Wisconsin Trophy. Other events and prizes will be announced at the first tee.

1300 A.M.G.A. Fellows in Every State of the Union

Dr. W. Albert Cook of Tulsa, Oklahoma, is President and Dr. E. S. Edgerton of Wichita, Kansas, and Dr. Clarence Capell of Kansas City, Missouri, are vice-presidents of the American Medical Golfing Association, which was organized in 1915 by Dr. Will Walter, Dr. Wendell Phillips and Dr. Gene Lewis, and now totals 1,300 members representing every state in the union. The living past presidents include Dr. Thomas Hubbard of Toledo, Dr. Fred Bailey of St. Louis, Dr. Edward Martin of Media, Pa., Dr. Robert Moss of LaGrange, Texas, Dr. Charlton Wallace of New York, Dr. Will Walter of Evanston, Ill., and Charlottesville, Va., Dr. James Eaves of Oakland, Calif., Dr. Chester Brown of Danbury, Conn., Dr. Samuel Childs of Denver, Dr. W. D. Shelden of Rochester, Minn., Dr. Walter Schaller of San Francisco, Dr. Edwin Zabriskie of New York, Dr. Frank A. Kelly of Detroit, Dr. John Welsh Croskey of Philadelphia, Dr. Homer K. Nicoll of Chicago, Dr. Charles Lukens of Toledo, and Dr. M. M. Cullom of Nashville, Tennessee.

Dr. Walt P. Conaway Again Heads Atlantic City Golf Committee

The Atlantic City Committee is under the general chairmanship of Dr. Walt P. Conaway, 1723 Pacific Avenue, Atlantic City, N. J., who so ably managed the 1925 Tournament at Seaview, and the 1935 Competition at the Northfield Club. He will be assisted by Drs. I. R. Beir, John Pennington, Karl Scott, Alfred Westney, and R. R. White.

Application for Membership

All male Fellows of the American Medical Association are eligible and cordially invited to become members of the A.M.G.A. Write the Executive Secretary, Bill Burns, 2020 Olds Tower, Lansing, Michigan, for an application blank. Participants in the A.M.G.A. Tournament are required to furnish their home club handicap, signed by the club secretary. No handicap over 30 is allowed, except in the Kickers' (Blind Bogey). Only active members of the A.M.G.A. may compete for prizes. No trophy is awarded a Fellow who is absent from the annual dinner.

Seaview a Magnificent Course

The twenty-third tournament of the American Medical Golfing Association at Seaview promises to be a pleasant affair. The club is one of the most elaborate in the country. The A.M.G.A. officers anticipate that some two hundred medical golfers from all parts of the United States will play in Atlantic City on June 7th.

Pyogenic Cystitis - - Its Diagnosis and Treatment*

CLYDE L. DEMING, M.D.

Pyogenic cystitis is so common that the remark I once heard from a very famous surgeon is ironically apropos. A patient was informed that he had a chronic bacillary cystitis and asked whether or not it was a serious problem. The surgeon replied, "Why, no, the B. coli is not a serious infection; the home of the B. coli is just around the corner in the rectum, only a quarter of an inch away."

It has been estimated that ninety to ninety-five per cent of all people have a bladder infection sometime during life. The physician in general practice sees it often. The surgeon encounters it in his suppurative cases. The pediatrician observes a pyuria in infants frequently; the orthopedist, in cases with fractured backs and pelves and bone infections; the rhinopharyngologist, in cases suffering with upper respiratory infections; the obstetrician, in pyelitis of pregnancy; the gynecologist, in pelvic tumors and pelvic infections; the opthalmologist, in cases with iritis and optic neuritis; and the psychiatrist, in nervous individuals.

It should be fundamental knowledge that the normal urine from a normal bladder is one of the cleanest of body fluids and that, above all, it is free from bacteria. The sunlight and sink tests of urines for organisms are fast becoming obsolete, although the naked eye still professes strong competition with the len of the microscope in some laboratories. A urine crystal clear to the naked eye may contain microscopic organisms.

In order to clarify our knowledge of bladder infections it is necessary to renew our acquaintance with the bladder as an organ. For a long time the bladder has been known to possess certain natural barriers against infection. Organisms do not pass readily through its wall from within, out or from without, in. The urine itself has been questioned as to its bacteriostatic power, but those of us who have had long experience with the treatment of bladder infections feel firmly that strongly acid urines cause a diminution in the amount of infection and, in many cases, a complete subsidence of the infection. The frequent emptying of the bladder is also a natural response of the organ in an attempt to rid itself of abnormal contents. The valves of the urethra prevent an ascending infection to the bladder and are natural barriers to infection.

Numerous organisms have been reported in bladder infections and it would be extraneous to give the whole list. B. coli is the organism most frequently found; staphylococcus aureus, streptococcus, gonococcus, pyocyaneus, B. proteus, diphtheroids, and B. typhosus, are the next most common.

As one analyses the various problems in bladder infection, the question as to how bacteria gain entrance into the bladder is undoubtedly the most important from the patient's standpoint. As a matter of fact, most organisms enter the bladder through one or more of its three orifices, either through the ureters or through the urethra and vesical orifice. Organisms entering the bladder through the bladder wall are rare but do occur in a few infections of the pelvic organs.

In the analyses of 1317 cases of pyogenic cystitis it was found that in 782 cases the organisms gained entrance into the bladder by way of the kidney and ureters as the result of a blood-borne or lymphatic infection; in 58 cases the organisms reached the bladder by way of the urethra; in 48 cases, by way of the lymphatics from infections of the internal genitalia, namely from prostatitis and cervicitis; in 10 cases, by way of the urachus in children; and in 12 cases,

From the Department of Surgery, Yale University and the New Haven Hospital, New Haven, Connecticut.
*Delivered before the New Haven County Medical Association at its semi-annual meeting, October 29, 1936.

through fistulae, both spontaneous and operative. 241 cases followed retention due to obstruction; 25 cases resulted from neuro-myopathic retention. In 19 cases the introduction of foreign bodies was the source of infection. In 122 cases direct avenues of infection could not be ascertained.

Course of Cystitis

Acute cystitis is a simple infection of the mucous membrane of a hollow viscus. It may be well compared to an acute cold or an infection of the upper respiratory tract, which usually clears in 7 to 10 days provided there are not any complications. In fact, a cystitis should clear more readily because there are not any ramifications of the tract. An infection lasting more than a month may be considered chronic, but even this infection should subside within a month of treatment, provided all factors which promote the infection are controlled.

Recurrences of both acute and chronic cystitis are frequent, and especially is this true if care is not taken to control the causes for the infection.

Diagnosis

The diagnosis of cystitis is not a difficult procedure as a rule. A history of an acute burning and smarting in passing a cloudy urine, without any other symptoms, is usually sufficient. Since the bladder wall is resistant to absorption and does not frequently allow migration of the organisms, there are not any associated chills and fever. Pyuria associated with chills and fever means a complication of cystitis. Either there is infection around the bladder or there is a renal infection. The urine from the female should be obtained by catheterization in order to make an exact diagnosis of cystitis. The male may be asked to void in three glasses. The third glass specimen represents the actual urinary content of the bladder, provided 100 cubic centimeters of urine is passed in each glass. If the third glass contains infection, then a cystitis exists. Cystoscopy provides a method of accurate diagnosis as to the limits of the urinary tract infection.

Complications

Complications of cystitis are common. Ulcerations of the bladder do occur, followed by perivesical infections, septicemia, and abscess formation. Long-standing bladder infections produce fibrous tissue formation at the neck of the bladder with contraction of the neck, obstruction, retention, formation of diverticula and calculi, and atony of the musculature. Occasionally spontaneous fistulae develop. During long, protracted periods of infection many patients develop a very unstable nervous system because of the desire and frequency of urination and the loss of sleep. Sooner or later the kidneys become infected, pyonephrosis develops, renal destruction follows, and death ensues.

Treatment

The treatment of cystitis may be divided into five parts: (1) Preventive treatment; treatment for (2) very acute cystitis with dysuria; (3) acute cystitis without dysuria; (4) chronic cystitis; and (5) cystitis associated with neuro-myopathic retention.

(1) *Preventive Measures.* Nowhere in the field of preventive medicine can one exercise more care and skill than in the prevention of cystitis. Many post-operative cases can be made to void without catheterization. The various means of turning on the water faucet and pouring warm water over the genitalia, are common knowledge, but many hernial and appendiceal cases can be made to void by standing on the floor beside the bed. The forcing of fluids directly after an operation or the introduction of fluids by clysis and intravenous methods, prevents many catheterizations by diluting the otherwise strongly acid urine which causes a hypertonicity of the sphincter muscle. Post-operative cases should not be allowed to remain too long with a hyperdistended bladder, as it has a tendency to reduce the tonicity of the detrusor muscle. Where catheterizations are necessary strictly surgical technique should be used. The genitalia should be thoroughly washed with soap and water. The meatus of the female should be painted with mercurochrome. The anterior urethra of the male should be irrigated with sterile solution prior to the passage of the instrument. The operator himself should wear sterile gloves and should use a soft rubber catheter, because hard catheters are apt to produce a slight injury to the protective mucous membrane of the bladder. Every catheterization should be followed by thorough irrigation of the bladder with a 2% boric acid solution or some other antiseptic, using at least 1,000 cubic centimeters in volume, followed by the instillation of 8 cubic centimeters of 5% argyrol. Certain drugs are of aid in the prevention of infection, especially hexamethylenawine, grains 15, t.i.d., Niazo, grains 1½, t.i.d., and elixir of mandelic acid, 2 drams, t.i.d.

(2) *Acute cystitis with dysuria* is best treated by placing the patient in bed for absolute rest. The fluid intake should be small, as large volumes of fluid have a tendency to cause more irritation. The patient should be given alkali, soda bicarbonate, grains 10, every three hours, or some comparable alkali to reduce the acidity of the urine. A bland diet should be prescribed. Alcohol and condiments always produce aggravated bladder conditions. Hot vaginal or rectal douches two or three times a day are of great help. For the pain, rectal suppositories of opium, grains ½ to grains 1 with belladonna, grains $^1/_6$, q4h, for two to four doses are a much better anodyne than morphia hypodermically and produce less gastric disturbance. Suppositories of codein may be used for children. In severe cases, to prevent gangrene of the bladder, a suprapubic cystostomy should be done. These latter patients will always present a picture of severe sepsis and need a suprapubic drainage of the bladder as their only source of relief.

(3) *Cases of acute cystitis with little or no dysuria* may be treated in the same manner as the group of cases with dysuria, except that the forcing of fluids from 3,000 to 5,000 cubic centimeters a day is a distinct advantage. The bladders in these cases should be irrigated daily with warm boric acid solution followed by instillations of 8 cc. of 5% argyrol. Silver nitrate and mercurochrome injections in these cases produce more irritability, a great deal of discomfort, and constant desire for urination. For specific infections like pyocyaneus, acetic acid, 1%, in the bladder after irrigation is effectual. 1% Phosphoric acid may be of advantage in those cases of staphylococcus infection which produces a strongly alkaline urine.

(4) *Cases of chronic cystitis without residual urine* are probably the most mistreated group of bladder infections. Advice as to diet and avoidance of alcohol is absolutely required. The bladder should be irrigated daily with a hot 2% boric acid solution or sterile water. The temperature of these irrigations should be started at 112 degrees Fahrenheit and should be gradually elevated until it reaches 120 degrees Fahrenheit. Oral urinary antiseptics, hexamethylenamine, methylene blue, and mandelic acid, which are used in rotation for a one week period each, aid in clearing of some of the chronic infections. The hot irrigations are by far the most important and should be given daily, using from two to four quarts. Patients who have had chronic cystitis for several years respond almost miraculously and within three weeks show a clear urine and almost complete abatement of all their symptoms. This treatment should be given by the physician and not by an attendant.

(5) *The treatment of neuro-myopathic bladders* with infection has always been a very difficult problem and since many forms of treatment are advocated it is probably safe to say that intelligent treatment has not been applied or that the correct treatment has not been found. Many people with fractured pelves show a retention of urine. The patient should be watched and if he is unable to void, a retention catheter should be inserted for about a week. The bladder should be irrigated three or four times a day and oral antiseptics like niazo or urotropin should be used. The atonic condition of the bladder, in the absence of other muscle paresis and paralysis, usually subsides and the patient is able to void normally within a few days. Even if there is a little infection from the retention catheter, this clears rapidly after the catheter has been removed. Those patients with fractured backs who have a possible chance of recovery are best treated by tidal drainage, as suggested by Frank Hinman or Donald Munro. This treatment can be carried out for a month or more to a good advantage and without detriment to the individual. Patients who have fractured backs with a permanent cord injury and paralysis of the lower extremities had best be treated with constant suprapubic drainage, because interval catheterization is apt to be accompanied by trauma as well as infection, prostatitis occurs due to the passage of instruments and relaxation of the urethra, upper urinary tract infections develop, and renal destruction follows. Individuals with completely paralyzed lower extremities, or even paralysis extending up to the costal cage, may be carried many years by suprapubic drainage.

Patients with chronically paretic bladders and cystocele, who have always some residual urine, can be made to empty their bladders by procumbent urination. The cystocele case, for instance, who has a bad heart and does not present an operable condition, may be taught to urinate in the procumbent position with a result of complete emptying of the bladder with each urination and a clearing of the chronic cystitis within

a week. This has been done in cases of weakened bladder musculature resulting from diabetes and in cases of paretic bladders resulting from arterio-sclerosis, multiple sclerosis, and cord injury. While this method of urination is rather awkward at first, the exclamations of the patients who have been relieved of infection by taking this mode of urination are emphatic and most pleasing to the practitioner. The general practitioner should not hesitate to recommend such a simple procedure.

Conclusion

The bladder is an organ which possesses definite inherent mechanisms of defense against infection. The avenues by which organisms travel into the bladder are few, but the causes for infection are numerous. When a bladder infection persists more than ten days there usually exists one of two possibilities: either there is an obstruction to the outlet of the bladder, or there is a source for the feeding of organisms into the bladder. Prolonged bladder infections lead to an early death.

The treatment of cystitis begins with preventive measures. Avoid catheterization whenever possible, but when it is necessary use a soft catheter and follow with a thorough irrigation of the bladder. Organic obstructive lesions must be removed. There are only a few valuable drugs which can be given by mouth. Daily hot irrigations will cure chronic bladder infections. Procumbent urination is of distinct help in the treatment of cystitis due to cystocele and paresis of the bladder.

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With the constantly increasing speed at which cars travel, it is becoming more necessary that some investigation be made of the *reaction time* of the motor vehicle operator, and of his ability to judge speed and distance.

E. S. Sherman, M.D.,
—*Jour. Med. Soc. N. J., March,* 1937

AMERICAN PUBLIC HEALTH ASSOCIATION

The Sixty-Sixth Annual Meeting of the American Public Health Association is scheduled for New York City, October 5-8, 1937. It has not met in this city for sixteen years. The last Annual Meeting met in New Orleans in October 1936, and boasted an enrollment of 1650 health authorities representing forty-five states, Canada, Cuba, Mexico, and nine other foreign countries.

The National Organization for Public Health Nursing will meet with the American Public Health Association this year for the first time. In addition the following will meet with the Association as usual: The American Association of School Physicians; The International Society of Medical Health Officers; The Conference of State Sanitary Engineers; The Conference of State Laboratory Directors; The Conference of Women in Public Health; Delta Omega.

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FOREIGN CONGRESSES IN SEPTEMBER

The International Society of Gastroenterology will hold its Second Congress in Paris, France, September 13, 14 and 15. "The Diagnosis of Gastric Carcinoma" and "The Acute and Chronic Occlusions of the Small Intestine" will be discussed.

The International Congress on Hepatic Insufficiencies will meet immediately afterward at Vichy, 90 miles from Paris, September 16, 17 and 18.

The United States National Committee of the International Society of Gastroenterology has been formed by representatives of the various gastroenterological societies in this country. The allotment of members in the United States is rapidly being filled and those who are interested in any of the phases of gastroenterological work and would like to join should apply to the President, Dr. Anthony Bassler, New York City.

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It is estimated that over 17,000,000 employees are now covered by unemployment compensation laws that have been passed representing eighty per cent of the employees who would be protected against unemployment if all States adopt similar legislation.—*Nebraska State Med. Journal, February* 1937.

Protamine Zinc Insulin*

BARNETT GREENHOUSE, M.D.
New Haven, Conn.

The discovery of protamine insulin marks the beginning of the second chapter in insulin therapy. Fifteen years ago Banting and Best gave insulin to the world and contributed to the very life of the diabetic patient. Today Hagedorn and his associates are making additional contributions to his comfort and well being, offering him further protection against the ravages of his disease. The rapidly accumulating literature (1) on protamine insulin and the universally favorable results that are being obtained, indicate that another major advance is taking place in the treatment of diabetes. Joslin has already named this the Hagedorn Era.

For the past decade a concerted effort has been directed toward improving insulin. Because of its rapid action and dissipation insulin has created problems. It has often failed to stabilize the metabolism of the diabetic, subjecting him to wide blood sugar fluctuations and metabolic excursions, frequently throwing him into insulin shock and more frequently leaving him entirely unprotected and loaded with sugar, and so subject to all the complications of diabetes attendant upon an uncontrolled disease. Admittedly, many of these unstable conditions can be controlled with multiple insulin injections and by exercising nicety of judgment in dietary management and timing of insulin administration. Too frequently, however, especially in the juvenile diabetic, even these extra efforts have not been rewarded.

Protamine insulin tends to keep the diabetic on a more even keel. Only one injection a day is usually required to keep the patient sugar-free. The injection is painless and furnishes a basic insulin supply by creating a depot from which insulin is slowly and continuously liberated so that the body has available a supply of insulin at all times, thus simulating the normal. The severe diabetic is at once transformed into a mild diabetic capable of utilizing adequate amounts of food and maintaining metabolic processes sufficiently normal to guard against the complications of diabetes.

In striking contrast to our past experiences with regular insulin, our first sixty-eight consecutive cases on protamine insulin have shown uniformly good results. Our series presented a rather wide variety of cases of diabetes and its complications in both the adult and child. We have found protamine insulin of value in every type case of diabetes that presented itself. We have used protamine insulin post-operatively with satisfactory control of the diabetic condition. We have also used it in diabetes complicated by infection, cerebral thrombosis, heart failure, gangrene, diabetic neuropathy and hepatitis, as well as routinely in the uncomplicated case. In every instance, whether by itself or in conjunction with regular insulin, protamine insulin has been effective. One case, our second, we did not carry long enough to include in this series.

Our purpose at first was to use the protamine compound not as an insulin substitute but rather as a basic insulin supply to fill in the gaps which occur with regular insulin. We now aim to replace the regular insulin altogether, reserving it for use in conjunction with protamine insulin only where an additional quick insulin effect is needed.

Protamine Zinc Insulin

As insulin was being increasingly purified its lasting effect became increasingly shortened. Present difficulties encountered in the routine treatment with regular insulin are caused by its rapid action and dissipation. The older insulins had a more lasting effect, evidently due to certain impurities which they contained. Recently the addition to protamine insulin of minute quantities of metals, notably zinc, has markedly enhanced and prolonged the protamine effect. It has also improved the stability of the prepara-

*From the Medical Service and Diabetic Clinic of the Grace Hospital, New Haven.

tion, so that it is no longer necessary to mix the protamine with the insulin before use. Protamine zinc insulin is now furnished already mixed and ready for use, with a potency date of six months.

We have noted repeatedly that since patients have been on protamine zinc insulin they appear to be more sensitive to regular insulin when used in conjunction with this protamine compound. We now use only five units of regular insulin where previously we would use fifteen units, and there is considerable hesitancy on our part to exceed ten or fifteen units at one injection lest we induce insulin shock. The zinc content of protamine insulin is the probable causative factor, since it is evident that zinc increases sensitivity to insulin.

The comparative results with protamine insulin and other mixtures of zinc and insulin as described by Rabinowitch and his associates is of particular interest in view of the influence of zinc on insulin effect. There is a natural occurrence of large quantities of zinc in the pancreas, and under certain conditions this metal has been found to interfere with the action of both injected and endogenous insulin. The action of insulin may even be totally inhibited by zinc, thus offering an explanation of the resistance to insulin at times encountered, particularly in infections occurring in the diabetic. Also in zinc may be found the explanation of the transient glycosurias which are occasionally found in infections in non-diabetics. As a rule, however, the addition of zinc has a favorable effect upon insulin, enhancing its effect, prolonging its action and increasing the patient's sensitivity to the injected insulin. The prolonged action of crystalline insulin is evidently not due to its purity but to its zinc content. Equally good and in some instances better results were obtained by the addition of zinc to regular insulin. Aside from the low toxicity of this metal, the possible accumulation of zinc in the body due to prolonged use of protamine zinc insulin is a negligible factor(2).

Protamine insulin as first described was shown definitely to prolong the insulin effect. Somewhat similar results were obtained with crystalline insulin, (3) insulin mixed with tannic acid, (4) and insulin impregnated with zinc. Even greater efficiency is, therefore, being attained with combinations of zinc with insulin and protamine. The indications are that the protamine zinc insulin complex is the most effective insulin available at this time. Our experiences are based entirely upon this zinc preparation.

Administration of Protamine Insulin

Regular insulin administered in small frequent doses has been demonstrated to be more effective than a single dose of the same total number of units. Large doses lead to increased insulin destruction in the tissues as well as excretion by the kidneys. The reverse appears to be true with protamine insulin. The efficiency of this preparation has been demonstrated to increase when larger doses are employed. Since the hypoglycemic effect extends well over twenty-four hours, the most favorable results are obtained if a sufficiently large amount is given in a single dose once a day. Forty, forty-five and fifty units are common dosages in our series, and we have not found it necessary to give more than sixty units of protamine insulin, exclusive of regular insulin.

The necessity for frequent insulin injections is thus eliminated. The desirability of a single daily injection appears self-evident. It has had a beneficial effect upon the morale of the diabetic individual, freeing him of the inconvenience and embarrassment of taking his insulin morning, noon, and night. But of even greater significance is that, routinely, one injection of protamine insulin does everything multiple injections of regular insulin can do, and does it better. The continuously available insulin keeps the blood sugar down and prevents the overnight rise in blood sugar which has proved to be so troublesome, especially in the juvenile diabetic. Our patients awake in the morning with lower blood sugars and remain quite sugar free throughout the day. There is a remarkable absence of diacetic acid in the urine and acetone occurs very infrequently and in very slight traces.

There is a tendency for the blood sugar to run a smoother course throughout the day. This may be graphically portrayed by a straight line representing the "basic blood sugar level" and punctuated here and there by peaks representing the rise in blood sugars following each meal. Whether or not these peaks will penetrate the level at which sugar spills over into the urine depends upon the position of the basic blood

sugar level. This level can obviously be elevated or depressed at will by varying the protamine insulin dosage. The blood sugar level should be maintained sufficiently low, avoiding a hypoglycemic state, to allow for a rise in blood sugar upon ingestion of food without exceeding the threshold at which sugar would spill. There are instances where the post-prandial blood sugar peaks are so high that in order to be accommodated in a sugar-free field the basic blood sugar level would have to be dropped down to hypoglycemic levels. Here it is more desirable to keep the blood sugar at a higher basic level by reducing the dose of protamine insulin and administer regular insulin as needed, in addition, to control these bouts of glycosuria.

When first changing over from regular insulin to protamine insulin efforts at stabilization may appear ineffectual and prove very trying and occasionally discouraging. The diabetic condition may get out of control and the patient may develop marked hyperglycemia, glycosuria and even ketosis. During this period it is necessary to employ regular insulin in addition to the protamine insulin until stabilization occurs. In the majority of our cases, however, the substitution of protamine insulin for regular insulin proved to be a relatively simple matter. The stabilization period averaged five days, with a maximum of twelve days in a moderately severe and previously uncontrolled diabetic.

We administer protamine insulin the first thing in the morning before breakfast. We begin with an amount equal to or greater than the previous total daily dose of regular insulin, and at the same time administer in the other arm fifteen to twenty-five units of regular insulin. We have not found it necessary to first stabilize the diabetic condition with regular insulin. We begin at once the use of protamine insulin in all cases. In the untreated case the initial dose of protamine insulin is estimated according to the apparent severity of the existing diabetic state, the dose ranging from thirty to sixty units. We have encountered no difficulty with the frequent use of forty units as the starting dose.

With protamine insulin we look ahead from twenty-four to seventy-two hours, and do not anticipate immediate effects as we do with regular insulin. It is essential, therefore, to estimate the probable daily dose of protamine insulin which may be required, and administer courageously large doses at the beginning and then diminish as indicated, rather than the reverse, lest one finds himself inducing a hypoglycemic state by overdosing when retrenchment should be in order instead.

The initial dose of protamine insulin is continued unchanged for three days, meanwhile administering regular insulin as usual with meals, as needed to control glycosuria, but in doses smaller than heretofore. The occurrence of sugar in a single fractional specimen is disregarded. It represents an unexpected blood sugar peak, and clears up without further treatment. Persistent glycosuria during the day is covered by five to ten units of regular insulin at a time. The possible need for regular insulin, however, should be anticipated in advance and administered in the morning, before breakfast, preferably, when the protamine insulin is given. The injection of regular insulin at other times of the day, even in reponse to glycosuria, may lead to hypoglycemic reactions later.

Within three days the protamine effect will begin to manifest itself by exhibiting low morning blood sugars and lessened glycosuria throughout the day with a corresponding decrease in the need for regular insulin. Accordingly, the regular insulin is decreased daily by first eliminating the evening dose, then the noon dose, and finally reducing and eliminating the breakfast dose. Meanwhile it may be necessary also to adjust the protamine dose in an effort to maintain a normally low fasting blood sugar. The rapidity with which the regular insulin can be discontinued depends upon the adequacy of the protamine dose.

The diabetic using protamine zinc insulin is further rewarded by an ever increasing tolerance for carbohydrates such as he has been unable to equal with regular insulin. Patients who have previously been on a fixed dose of regular insulin are able to radically reduce the protamine insulin dose within a few months. A striking example is the elderly diabetic who, within six months, reduced his protamine insulin from thirty-five units daily to ten units once every three days. Once the patient is stabilized it is our practice to reduce the protamine insulin dose by one or two units every three days if the urine continues sugar-free, and likewise increase the dosage if sugar appears. In response to insulin reactions or low fasting blood sugars the dose is reduced more abruptly.

Frequent blood sugar determinations are desirable but they are not altogether necessary where the urine is a reliable indicator. The fasting blood sugar before breakfast is the most important single test needed to determine the adequacy of the daily protamine dose. Repeated blood examinations, however, help to more quickly stabilize the patient. They are particularly useful in the latter part of the stabilization period to better determine the daily maintenance dose, its time of administration and the most effective distribution of the dietary prescription.

Reactions

We are experiencing fewer and milder insulin reactions since using protamine insulin. We have not had a single insulin reaction severe enough to require glucose intravenously. This is in striking contrast to the frequency and severity of reactions resulting from the use of regular insulin and the common use of glucose intravenously to combat insulin shock in the past. The present reactions are easily controlled by the ingestion of some rapidly available form of carbohydrate for its immediate effect to be followed by a slower acting carbohydrate to protect against a recurrence of the reaction.

Most of the reactions occurring when the two insulins are used together can probably be ascribed to the regular insulin rather than to the protamine compound. Some of these reactions result when the peak effect of one coincides with the peak of the other. Others are caused by protamine insulin itself, when, by administering it twice daily, the doses are pyramided with a resulting cumulative effect. With our present routine of giving protamine insulin once daily, in the morning, the reactions commonly occur at midnight, about eighteen hours later, but their frequency and intensity have been markedly reduced.

It is noted that patients on protamine insulin tolerate hypoglycemia better than they do on regular insulin. It is not unusual now to find low blood sugars unaccompanied by symptoms of insulin shock. One patient remained perfectly at ease with a blood sugar of only 50 mgm. per 100 cc. blood. In striking contrast to the rapidity with which insulin shock develops with the use of regular insulin, these reactions now come on very slowly, frequently over a period of hours rather than minutes. The hypoglycemic state manifests itself by a continuous and slowly increasing feeling of restlessness and irritability which, if it remains unheeded, leads to a dazed condition. One, patient, a physician, taking 60 units ot protamine insulin, experienced this irritability all day long, but failed to heed the warning until he was too dazed at supper time to help himself. He recovered promptly when his wife gave him orange juice and followed it with his supper. It does seem, however, that the severe reactions encountered with regular insulin are due not so much to the hypoglycemic levels created but rather to the speed with which the blood sugar is being cut down.

The indications are that there is even less discomfort experienced with injections of protamine insulin than is encountered with regular insulin. This is attributable to the fact that protamine insulin has a pH 7.3 which is approximately the same as that of the body fluids, whereas regular insulin is approximately pH 3.5. Generally, there have been no ill effects observed and there has been no discomfort to the patient. In a few instances some local irritation has occurred with more or less pain, redness and nodule formation at the site of injection. These either subsided gradually in the course of time or disappeared coincidently with a change in the brand of insulin. Otherwise we experienced no difficulties and were able to change from one brand to the other without apparent change in effectiveness.

Diet

Each of the various types of diets used in the treatment of diabetes has its enthusiastic advocates and equally good results are being displayed. It is evident that the control of the diabetes is the all important thing. We favor the higher carbohydrate diets. We do not emphasize any special division of meals, although breakfast is apt to be the smaller meal. We do emphasize, however, the frequent need for some carbohydrate to be taken between meals and at bedtime in order to protect against insulin reactions. These extra feedings are subtracted from the meals preceding, and are administered as fruit in adults and milk in children.

Specifically, we subtract from the day's dietary prescription the value of three glasses of milk one of which is given at 10 A.M., one at 3 P.M., and one at bedtime. The balance of the

diet is divided into three equal meals. When the between-meal-feedings are no longer necessary, the value of the 10 A.M. milk is added to the noon meal, and the 3 P.M. milk is added to the evening meal, thus keeping these two meals equal and interchangeable. The milk at bedtime is continued indefinitely either as such or it may be converted into a more delectable snack upon retiring.

The carbohydrate content of our diets varies from 125 to 175 gms. With the use of protamine insulin the carbohydrate has been increased to 200 gms. without any appreciable increase in the total unitage over that required in the lower carbohydrate diets with regular insulin. Protamine insulin seems to allow considerable leeway in the variation of carbohydrate content of the diet. Although our diets are weighed and measured, three elderly patients who are per force on a regular diet are mostly sugar free on twenty-five units of protamine insulin once daily. This is in contrast to their previous experience of seldom being sugar free on larger doses of regular insulin frequently divided into two injections daily. It is not our intention to encourage lax dietary control, but it does seem that protamine insulin is more tolerant to dietary infractions than is regular insulin.

Special Considerations

Last we appear to ride the wave of optimism we submit that the effects of protamine insulin frequently leave us puzzled. The haphazard appearance of glycosuria with and without blood sugar elevations is quite unorthodox. On occasions we are led to feel that protamine insulin has a tendency to lower the threshold at which sugar spills so that we are willing to countenance these freak glycosurias as harmless episodes, comparable to renal glycosuria. Certainly, some of our patients feel better when they show some sugar in the urine and feel quite uneasy when sugar free.

We have learned to solve some of our problem cases by administering a small dose of regular insulin before breakfast, at the same time the protamine insulin is given. Particular attention is paid to the urine tests before breakfast and before noon. If both of these are kept sugar-free the rest of the day usually takes care of itself. The breakfast test indicates the adequacy of the protamine dose while the noon test points to the adequacy of the regular insulin dose. However, two simultaneous hypodermic injections with two kinds of insulins are not desirable to the patient and lead to confusion.

The action of protamine insulin is not as smooth as we graphically portray it. It presents its own problems, chief among which is the very purpose for which it was devised; namely, its prolonged action, visiting upon the second and third day. In addition to immediate sound judgment which we have not even yet perfected with regular insulin we must now exercise faultless judgment several days in advance, while the human organism goes on living from day to day and hour to hour reserving the privilege to make sudden changes without warning.

We have not yet found an optimum time for administration of protamine insulin. Giving it in the evening was quite satisfactory. We now give it early in the morning with even better effect. However, with this latter method patients are apt to be in a hypoglycemic state throughout the night. We do not know yet whether or not it would be desirable to shift again the time of administration so that the subsequent hypoglycemic state may be timed to occur during the waking hours of the day and seize upon it as an advantageous time to feed the patient and keep him sugar free.

Amidst these new problems which have been created we think of our youngest diabetic, a little girl eight years old, now using protamine insulin. She could not be controlled with two injections of regular insulin daily and it seemed that four daily injections would have to be resorted to. She was excreting large amounts of sugar, she was not gaining weight, and she was anemic and frail. With forty units of protamine insulin once daily she is now mostly sugar free and gaining weight. The blood sugars and cholesterols are within normal limits and she is now adequately metabolizing and utilizing her food intake.

Summary

The advent of insulin saved the very life of the diabetic. Protamine insulin now offers him comfort and normal development with increased protection against the complications of diabetes. He is freed of his extreme metabolic excursions, beginning with an overnight rise in blood sugar, morning acidosis, and afternoon hypoglycemic shock. His metabolism can now run an even

keel. A single injection of protamine insulin creates a depot which continuously supplies his body with insulin, never leaving him unprotected. There is little or no glycosuria and, therefore, no food waste, with consequent normal growth and development. Acidosis is no longer encountered and blood sugars and cholesterols are within normal limits. A faulty metabolism is righted and there is no cause left for complications. Much of this is wishful thinking, but evidence strongly points in that direction. Adequate control of diabetes is the all important necessity to safeguard the present and future of the diabetic, both young and old. Protamine insulin makes such adequate control possible. Yet, protamine insulin is a contribution and not a solution to the diabetic problem.

The writer is indebted to the laboratories of the Eli Lilly and Company and E. R. Squibb and Sons for the gratuitous supplies of insulin used in this study; and to Dr. F. B. Peck and Dr. H. S. Newcomer of the respective laboratories for their helpful cooperation; also to Dr. S. J. Goldberg, chief of Medicine at the Grace Hospital, for his valued assistance and contribution of sixteen cases to this series.

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Table 1. Showing Stabilization with Protamine Zinc Insulin.

	7 A.M				12 Noon			5 P.M.			10 P.M.		
Day	S	BS	PI	RI	S	BS	RI	S	BS	RI	S	BS	RI
1	4+	210	50	15	4+	...	10	3+	...	15	0	...	..
2	0	...	50	15	0	...	5	+	...	5	re	...	5
3	0	155	50	10	4+	...	10	+	...	..	2+	...	..
4	0	...	50	10	0	87	..	+	165	5	0	...	..
5	0	...	50	5	+	...	..	0	...	..	+	...	..
6	0	112	50	..	+	180	..	0	110	..	+	130	..
7	0	...	40	..	+	...	..	+	...	..	0	...	..
8	0	...	40	..	2re	...	..	+	...	..	0	...	..
9	0	...	40	..	re	...	..	0	...	..	0	...	..
10	0	...	40	..	re	...	..	0	...	..	0	...	..

S=urinary sugar; BS=blood sugar; PI=protamine insulin; RI=regular insulin.

This case exemplifies the type of diabetic patient who responds well to protamine insulin: Mrs. Y. S., age 44, overweight and moderately severe diabetic of six years duration, previously untreated, was placed at once on protamine insulin in conjunction with regular insulin. A 1500 calorie diet was prescribed to encourage weight loss and it was kept constant at C 150, P 70, F 70, divided in three equal meals with feedings (milk), between meals and at bedtime. There was no acetone or diacetic acid in any of the urine specimens. Note appearance of slight traces of sugar in the urine with normal blood sugar values.

To eliminate sugar in the 7 to 12 A.M. fractional urine specimen, the mid-morning feeding was subsequently omitted and added to the feeding at bedtime in order to further protect against a possible hypoglycemic state during the night. The insulin was gradually decreased and within two months she remained sugar-free on 30 units of protamine insulin once daily. The diet was occasionally rearranged to redistribute the carbohydrate load to best advantage with a saving of insulin.

The Effect of Presacral Neurectomy on Subsequent Childbirth, A Case Report

JAMES RAGLAN MILLER, M.D.

Presacral neurectomy has become a useful method of treatment in cases of severe dysmenorrhea which cannot be ascribed to definite pathology and which resist other well-known and simpler methods of treatment. When extensive resection of nerve fibres is carried out, stripping the entire triangle bounded by the great vessels and the promontory of the sacrum, there is fairly uniform relief of crampy dysmenorrhea. The method has not been used long enough to obtain extensive experience in the effect on subsequent labor and it is highly desirable that such a case as that presented should be placed on record.

Since the relief of dysmenorrhea is less complete with an insufficiently extensive resection and since relief may become progressively less in subsequent years due to regeneration of nerve tissue, so also the effect on labor pains may vary.

Mrs. V. B., aged 28, Hartford Hospital history No. 315094.

When first seen in January, 1936, she had been married seven years. In spite of taking no precautions she had remained sterile. The periods began at twelve years and were regular every twenty-eight days, lasting for seven days. Ever since onset she has flowed excessively with cramps and lower abdominal pain. The cramps and pain had steadily increased until her duties as a maid in a doctor's family were severely interfered with for three days each month. The breasts did not swell or get tender before her periods. The appendix had been removed three years previously for supposed chronic appendicitis. She had had some discomfort in the pelvis on bowel movement.

Examination showed a normally developed woman, breasts slightly underdeveloped, no tenderness on palpation of the abdomen. The external genitalia were normal without signs of inflammation. The cervix showed slight eversion and the uterus was normal in size and consistency, lying in extreme retroflexion, and by rectal touch a nodule 1 cm. in diameter was felt at the insertion of the uterosacral ligaments. Motion of the cervix was slightly restricted and the adnexa felt normal.

OPERATION: February 10, 1936. Dilatation of the cervix quite easily accomplished up to 10 mm. Laparotomy through a Pfannensteil incision showed the uterus normal size, in extreme retroflexion, with a small amount of serosanguineous fluid in the pelvis. Both ovaries were moderately adherent, more so on the right, causing a small defect in the peritoneum of the broad ligament on separating the adhesion. A small nodule, described on examination, was excised for biopsy and another, slightly larger, was also removed from the right uterosacral ligament. Uterosacral ligaments were shortened to correct retroflexion.

A thorough dissection of the presacral nerve fibres was done, stripping the entire triangle in front of the sacrum and cleaning off the adjacent portions of the external iliac vessels. About three inches of nerve and connective tissue was removed, including one and one-half inches of pelvic portions of the presacral plexus.

An uneventful recovery ensued. She menstruated three times, a normal amount and without any pain, and she expressed herself as being willing to submit to the operation again under similar circumstances, so great was her sense of relief.

Following her third period she became pregnant and was delivered of a full-term, normal child on February 16, 1937. The onset of labor was spontaneous and she was without any sensation of pain up to the point of distension of the perineum when Cyclopropane anaesthesia was given and normal expulsive efforts were allowed to deliver the baby, aided by a central episiotomy. During labor this patient was repeatedly asked if she had any pain which she denied, in spite of the fact that she had come to the hospital

*Hartford Hospital pathological report No. 32281. Endometriosis, Nerve fasciculi.

MAC: Biopsy of grey tissue 1 cm. in diameter. On one surface tiny haemorrhagic cysts are present; separately, a strip of fibro-fatty tissue 5 cm. in length in which a few nerve fibres are apparently present.

MIC: The dense grey tissue shows fibrous tissue through which small islands of characteristic endometrial tissue are seen. Glands are not remarkable. The stroma is of ordinary structure. Very little interstitial haemorrhage is present. The separate piece of fibro-fatty tissue contains fasciculi of nerve fibres. No ganglia are demonstrated.

anticipating a painful experience. She was conscious of the onset, duration and termination of each contraction of the uterus and her perception coincided in time with the observation of the contracting uterus made by palpation. The delivery of the placenta was spontaneous and her puerperium was normal in every respect.

Careful questioning revealed the fact that the sex function was interfered with in no respect. Bartholin gland secretion during intercourse was copious and orgasm was more satisfactory than in previous married life. Involution was found to have been normal.

It would seem from this case that the crampy pains of menstruation and of the first stage of labor may possibly be controlled by an adequate presacral neurectomy if the labor ensues within a period of time before regeneration of nerve fibres has taken place.

Another interesting and somewhat theoretical consideration concerns the endometrial implant. According to Sampson's idea of etiology of this condition, there is a sort of vomiting up of endometrial tissue, possibly by reversed peristalsis or back pressure, these bits of tissue becoming implanted in the ovary or most commonly falling to the lowest points of the culdesac. It is suggestive that this patient also had endometriosis as well as her crampy dysmenorrhea and that the two conditions may be connected. May not crampy contractions of the non-pregnant uterus, whether by obstruction at the internal os or otherwise, be caused by a reversed peristalsis? If this be so, is it not fair to suggest the advisability of performing a presacral neurectomy in all young women in whom endometrial implants are observed and in whom the sub-total resection of ovarian tissue is carried out? It would seem that there is some likelihood that a double service might be rendered the patient in reducing future pelvic pain if further implants grow in the pelvis and to minimize the possibility of further implantations via the tubes.

It may also be fair to raise the question of the relation of sterility in this patient to the same reversed peristalsis which, if it were present, would hinder the downward passage of the ovum.

SUMMARY: Report is here made of a presacral neurectomy for severe dysmenorrhea in a patient who had been seven years sterile and who had retroflexion and endometrial implants in the pelvis. Relief of dysmenorrhea and sterility and a completely painless first stage of labor ensued one year later without any deleterious effect upon the labor or puerperium.

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Hartford, Connecticut.

Personal Communication

Dr. T. K. Reeves, Pittsburgh, Pennsylvania, performed a presacral sympathectomy on a patient who subsequently delivered twice in the hands of another physician.

She was delivered at full term of a nine-pound child without anaesthesia and the physician stated that the patient had a comparatively painless labor. Her first knowledge of pain was when the head began to distend the introitus. One year later she delivered a six months' gestation without any pain whatsoever.

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FROM THE CONNECTICUT HOSPITAL ASSOCIATION

The following is a summary of the losses to hospitals of the Association, in their hospital and emergency departments, for the year 1936, as a result of automobile accidents:

	Total Patients Treated	Hospital Administration	Out Patients	Cost to Hospitals	Cash Received	Loss to Hospitals
Hospitals reporting	2,850	2,000	850	189,898.64	123,389.56	66,509.08
All others	2,212	1,552	660	131,717.67	85,661.04	45,056.63
	5,062	3,552	1,510	321,616.31	209,050.60	112,565.71

The Legislative Committee,

OLIVER H. BARTINE, *Chairman*,
JOSEPH HINSLEY,
MAUDE E. WISE,
WILMAR M. ALLEN, M.D.
WILLIAM B. SWEENEY,
ALLEN BROSMITH.

Injection Treatment of Hernia*

DANIEL C. PATTERSON, M.D., Bridgeport

I doubt if any surgical procedure in recent times has encountered the distrust that is shown by the medical profession at large toward the injection treatment of hernia. Any mention of the subject is generally met with hearty condemnation, but with the admission of the critic that he knows nothing about it. The rather unreasonable opposition to this form of treatment is due to two factors. The first is that for many years it was carried out quite extensively by quacks, and their methods were unscientific and generally of no value. The second is that the medical profession in great part is unacquainted with the work that has been done on this procedure in recent years, and the results obtained by capable surgeons; however, it must be admitted that the literature on the subject is not very enlightening or convincing, especially so when it carries the advertising of a pharmaceutical manufacturer. We should, nevertheless, have an open mind and "Try all things and hold fast to that which is good." We must remember that many of our present recognized methods of treatment were but a few years ago looked at with disfavor.

I feel that the method should be given a trial by competent men and thus kept from falling into the hands of the incompetent, for it will surely do so if a patient desiring this form of treatment is unable to get it from those who are qualified to use it. It is desirable that careful observations of this procedure by a large group of operators be made, as their findings would give us a proper estimate of its value. I also feel that the profession should be warned against the dangers of its indiscriminate and inexperienced use.

While some men of considerable experience give it a wide range of application and preference over the usual operative repair, I feel, at present anyway, that it has a rather limited field and that its advantages are principally economical. I admit that I approached the subject with as much prejudice as anyone, but I felt that I would like to find out for myself whether it had value or not.

The question cannot be settled by a shrug of the shoulders, when such a man as Billroth wrote in 1880, "If anyone could obtain a solution that would cause the artificial proliferation of tissue, the radical operation for hernia would be obviated." The lack of such a solution has been a stumbling block to a more rapid development of the treatment. The search for the ideal irritant has been going on for over a hundred years. Doctor Velpeau of Paris in 1835 observed a hernia that had been cured by the accidental introduction of iodine into the canal during the injection of a hydrocele, and he later treated hernias by means of iodine injections. It is reported that in 1836 Doctor Joseph Pancost cured thirteen cases of hernia at the Philadelphia General Hospital by injecting Lugol's solution into the canal. In 1843 Doctor George Heaton reported in the Boston Medical & Surgical Journal, a cure of hernia by injection, but he did not disclose the nature of the solution at the time. He continued his treatment evidently with good results, and in 1877 wrote a book on the subject. In this book he revealed his formula, the active agent of which was quercus alba. He generally made but one injection, through a needle of his own design. Following the injection the hernia was kept firmly bandaged and the patient in bed for a week or more. He warned that the method demanded great skill and judgment. After Heaton's death Doctor Joseph Warren of Boston took up the work, and in his text book published in 1881 gave the first clear description of sero-plastic repair.

In 1877 the use of 70% alcohol as an injection was introduced in Germany, different techniques being used by different operators. Some gave daily injections for two weeks, and some weekly injections for a year. The method was not generally adopted by the medical profession, and

*Presented before the Connecticut State Medical Society, Hartford May 20-21, 1936.

fell into the hands of quacks. As a result of their unskilled treatment, some poor results were reported. A little later the use of pararfin injections to close the inguinal canal came into practice. This method fell into disrepute as the plug generally shifted and had to be removed.

Doctor I. Mayer of Detroit has been given credit for modernizing the injection treatment about 1900, by making it ambulatory. He treated only reducible cases that could be held by a truss, and used small doses,— 2 to 5 drops of a zinc sulphate and phenol solution. In thirty years he treated over 2,000 cases, publishing his results in 1927, and again in 1932.

In 1927 Doctor Pina-Mestre of Spain published the results of many years work on this form of treatment, and announced a new type of solution which was made of mild plant tannic acid extracts. This solution was introduced into America about 1929, and has been used quite extensively.

Drs. Bratrud, Rice, McKinney and Bell, working at the University of Minnesota and the Minneapolis General Hospital, have contributed valuable information from their experimental and clinical work. Injection treatment has been in use at the Minneapolis General Hospital for over three years, and used in over 600 cases; and has been in use at the University Hospital for over four years. They have used various solutions endeavoring to find the most satisfactory one. Treatment is now being carried out in practically all parts of the country, and it should not be long before considerable valuable information is available.

The object of the treatment is to produce firm fibrous tissue formation that will block the hernial opening, by means of sclerosing solutions. Considerable experimental work has been done on animals, and it has also been possible to study injected tissues from patients. Reports of this work state that a dense, mature, fibrous tissue is produced. Doctor Rice states that from his investigative work, "it seems that the rational of the injection treatment for hernia can be established on sound scientific principles."

In 1929 Doctors Hall and Fraser published the results of their experiments with the Pina-Mestre solution, performed on guinea pigs, dogs and monkeys, at the New York University and Bellevue Hospital. They found "the reaction to consist of a vigorous proliferation of endothelial and connective tissue cells, together with large mononuclear phagocytes and foreign body giant cells." They added that "experience with foreign body granulomas in general proves that this type of tissue reaction does not lead to malignant neoplasms, at least to any greater extent than other forms of chronic irritation.

Preparation

There are several preparations on the market that are now being advertised to the profession, and I fear that as the propoganda spreads the impression will be gained that the operation is a simple procedure and can be carried out by anyone that can give a hypodermic injection, but such is not the case. No one should attempt this form of treatment until he has familiarized himself with the proper procedure; and a thorough knowledge of the anatomy and pathology of the hernia region is necessary to success.

A description of the solutions in use may be of interest:

Galtanol is described as a hydro-alcoholic tincture of botanical extracts of gallic and tannic acid. It is claimed to be non-caustic, and non-toxic.

Proliferol is a distillate of several botanical herbs to which was added 0.1 tannic acid, and .05 thymol and benzyl alcohol.

Sylosol is a 5% solution of the fatty acids of a vegetable oil extracted from the seed of the psyllium group. This solution is made anesthetic.

Pina-Mestre, named after Doctor Mestre, is also a solution of mild plant tannic acid extracts.

Thuja mixture is composed of phenol 50 parts; alcohol 25 parts; and tincture of Thuja 25 parts.

Doctor Mayer's solution is composed of zinc sulphate, 1 dr.; phenol crystals, 6 dr.; glycerine 4 fl. drs.; Cinnamon water 1 fl. dr.; fluid extract of Pinus canadensis 5 fl. drs.; and distilled water 2 fl. oz.

The Thuja mixture and Mayer's solution are used in two to five minim doses, injected twice a week.

An unbiased comparative study of the tissue response to the different solutions would be of interest and value.

Technique

The important steps in the technique are that first the patient must be fitted with a truss that will keep his hernia completely reduced. The

truss must be worn day and night while he is receiving injections, and this generally means one month. After the injections are completed he should wear the truss day and night for another month. At the end of that time he can discard it at night, but it is advised that he should wear it during the day for six months longer.

The truss should be worn several days before the injections are started. This gives the patient time to become accustomed to its presence at night, and also frees the inguinal canal. Seldom does the patient complain of the truss after a day or so. The injections are given every other day using 2 or 3 c.c. of the botanical sclerosing solutions. As the idea is to close the inguinal canal the solution is deposited just under the aponeurosis of the external oblique muscle from the internal to the external ring. Some operators prefer to start the injections at the internal ring; others recommend starting at the external ring. The former procedure appears the better to me. It is well to have a definite route laid out for the injections, and thus avoid repeated deposits in the same spot. This is done by marking the site of the injection with a stain, or small piece of adhesive. We have adopted the plan of mapping the inguinal canal, and follow a certain route in the injections. The needles should be 1½ or 2″ long, short beveled, and 24 gauge. A 5 c.c. syringe is convenient.

If Galtanol or Proliferol is used, a preliminary injection of novocain is necessary, in which case 2 c.c. of a 2% solution is injected into the desired site. The syringe is detached and the needle left in situ. At the end of five or six minutes a syringe containing the solution is attached to the same needle and the injection made very slowly. As Sylosol is anesthetic it does not require the preliminary injection of novocain. When making the injection the patient is placed in a slight Trendelenberg position, the groin cleansed with alcohol, and the needle introduced pointed slightly towards the pubes. This is merely a precautionary measure to prevent puncture of the peritoneum. I find it helpful to insert the finger in the external ring while making the first injections. The needle should be introduced until it is felt to puncture the fascia. The plunger is withdrawn to see that the needle is not in a blood vessel, and then the solution is introduced. If pain is produced when the injection is started, the position of the needle point should be changed slightly. When the needle is withdrawn pressure is made over the injected area by the patient, and he is kept quiet for ten or fifteen minutes. His truss is then re-applied and he is allowed to resume his usual work. Too much emphasis cannot be placed on the proper fitting of the truss, and the necessity of keeping the hernia reduced until closure has taken place.

We are giving twelve injections just as a working plan, but some hernias may require more than this. The patient should be examined every two months for at least a year, and if there is any weakness evident it is a simple matter to make additional injections. The patients have invariably stated after several injections that they did not feel the hernia any more.

In some cases where the hernia is large and difficult to retain it is advisable to keep the patient in bed for a time; however, in such circumstances there is, in my opinion, a lessened advantage to the injection treatment. In such a case, injections are made daily for a week, and it is reported the patients are then able to return to work with the truss holding the hernia in place. Doctor Bratrud has pointed out the advantages of sclerosing injections in a post-operative case where there is evidence of an incipient recurrence, and feels that there is much in favor of a combined form of treatment. He has gradually extended the application of the method and now uses it for direct and some femoral and incisional hernias.

The advantages of this form of treatment are, as stated before, primarily economic,— the patient can remain at work and hospital expense is eliminated. It can also be used in some cases where operative measures are contra-indicated, and some patients will submit to this procedure who would not consent to an operation. It is particularly satisfactory in suitable recurrent hernias.

It is definitely contra-indicated in cases where complete reduction is not possible, or where the hernia cannot be firmly retained by a truss; also in sliding hernias, and the incisional hernias with multiple openings. It is certainly not suitable for hernias complicated by an undescended testicle. I cannot visualize its usefulness in the average run of direct or multiple-sac hernias. I would hesitate to use it in a femoral hernia, for

in such a case it is difficult to say whether reduction is complete, and proper retention by a truss is questionable. Any condition causing a chronic cough would obviously interfere with this type of treatment.

The danger in this procedure is in injection of the sclerosing solution into a blood vessel or the peritoneal cavity, and the possibility of such an accident must be borne in mind. Injection into the spermatic cord may produce a hydrocele, but this condition may also follow a hernioplasty and is not a serious complication. It is easily relieved.

Doctor Bratrud reports very few complications in his cases. There was an occasional swollen cord, with sometimes pain lasting for a good part of a day. In none of his cases has he observed atrophy of the testicles, unless the condition was present previous to treatment. He reports one death in a case that had received an injection of 16 minims of the Thuja solution. Not at their clinic, however. It resulted in a perforation of the ileum, with fatal peritonitis.

The reported results from various sources resemble the casualty figures of the Ethiopians as reported by their own and the Italian commanders, anywhere from 15 to 99% of cures. Doctor I. Mayer of Detroit who has treated over 2000 cases in the past 30 years reports 98% recoveries. Doctor Pina-Mestre in 1927 reported over 10,000 cases treated by injection with an infinitesimal percentage of failures. Doctor Hall states that the Chief Surgeon of the Hospital for Children in Barcelona informed him that Doctor Pina-Mestre had treated over 200 children at that institution for hernia, in a three year period, and their official statistics showed only 1% of recurrences. These figures seem to be a little more unbelievable than the hernia statistics given out by some of our operating surgeons, many of which need to be followed by a draft from the Great Salt Lake.

I do not feel that hernia statistics are of any value whatever unless they are based on a careful re-examination of the patient, with the type of hernia and the elapsed time taken into consideration. The patient's report on his own condition is not reliable, and the fact that he has not returned complaining of recurrence means nothing. Doctor Bratrud reports that in his last check-up up 707 cases, 17% showed recurrences. The recurrent hernias were much smaller than the original and I infer from his report that most of these were relieved by further injections. 10% of the cases were direct hernias. In only nine cases was there failure to get closure.

St. George Gray, F.R.C.S., who published an article in the British Medical Journal in 1932 reported complete success in 18 out of 25 cases, and considered the results highly satisfactory.

Doctor Frederick Slobe of Chicago says "During the past two years I have been injecting most of my hernias instead of operating on them, and the results thus far have been equally satisfactory."

Doctor Ralph Wolfe of Brooklyn in 1931 reported 22 cases, with success in 19. In 1936 he writes, "I am still treating indirect inguinal hernias by injection in selected cases. A small indirect hernia in healthy vigorous subject, and small recurrent herniae are suitable for this type of treatment."

Doctor L. Larson of the University of Minnesota in 1934 reports 93.5% cures, but gives no length of time since operation.

Doctor Jameson of Newark, in 1931 reported 64 cases, with 4 recurrences.

Doctor James S. K. Hall of New York in 1929 reported 33 cases, with one recurrence.

I have a letter from Dr. Hall which is rather interesting. He is the man who with Dr. Fraser did the work at New York University and Bellevue Hospital and reported his cases. It shows the attitude of surgeons in regard to some of these questions that they are not familiar with. He says:

"My dear Doctor:

"Replying to your letter of April 28th, will say that I have had very little experience with the treatment of hernia by injection other than the original scientific work I did in the laboratory and the clinical cases I reported, which were not done with the object of introducing something new, but to ascertain if there was any virtue in this method of treatment.

"The report of my work upon which I spent considerable time and money, instead of bringing forth friendly comment, resulted in my receiving insulting letters from some doctors. It was a means of giving thought to quacks all over

the country who instantly began advertising the cure in the papers. I decided to drop the matter.

"I did not enter into it for a monetary gain, but purely for scientific and clinical results, and I must say that I had some very flattering results. Last January I met a patient I treated in my original series. He was still in excellent condition. There are returns on some of my cases, but my records are not yet complete on this point."

Doctor LaRochelle of Springfield who advocated this form of treatment in 1931, writes in 1936, "After considerable experience with the injection treatment for hernia I have about given it up. It is not satisfactory at this time."

Doctor Carol O. Rice, Minneapolis, writes, "In a study of cases which we have done over the past four years we have found in those cases which we can follow that we have obtained 97% cures. We have observed a little over 3% incidence of complications in one form or another."

Doctor S. W. Fowler of New York who has treated a great many cases and written several papers on the subject, writes, "No thorough study has ever been made as to the statistical rates of end results for the injection treatment of hernia. My correspondence with some two hundred Doctors whose cases total more than 10,000 cases indicates a rather high rate of success." He further states, "Fortunately with the injection treatment a recurrence does not spell failure, in as much as a few additional injections usually restore the repair. By such occasional reinforcement it is possible to get a very high percentage of final closures."

In one of the large Boston hospitals where a series of fifty cases have been under treatment, twenty have been completed, and of these twenty, eighteen are considered to have a satisfactory result. There have been no complications.

In a personal communication from a surgeon carrying out the injection treatment at one of the New York Hospitals I am informed that the results are very unsatisfactory, but as a complete report of their work is to be published this Fall I do not feel at liberty to quote them further. I will say, however, they attempted treatment in cases that were most difficult. I saw one that was undergoing injections who had been operated on four times, with recurrences following each operation.

While these reports are as a rule favorable, I do not feel that they can be given entire confidence, as in only one instance is the length of time following treatment mentioned, and that was only for a period of two years. None of them meet the requirements for hernia statistics previously stated.

My own experience is small, and has covered too short a period for any definite conclusions as to the efficacy of the procedure. I will say, though that in about a dozen carefully selected cases the hernias have been reduced and show no tendency to protrude on straining efforts; however, most of these patients are still wearing their trusses while at work. Four of them were cases of recurrences, and were unwilling to submit to a second operation. These patients have all continued at work and have suffered but slight inconvenience. The number of complaints of pain following injection has been very few.

From my investigations and experience I feel that in certain selected cases this method offers a very satisfactory form of treatment, but until more reliable statistics are available I do not feel that it can be whole-heartedly recommended. The technic has been worked out, and it has been shown by experiments and experience that efficient solutions are available. The question now is, "Will the repair stand the test of time?"

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ABSTRACT OF DISCUSSION

Dr. W. F. Verdi (New Haven): I have had no experience whatever in the treatment of hernia by injection and I don't expect to have any experience with such a method. I am sure, knowing Dr. Patterson as I do, that he will not continue this treatment very long. It is a treatment I positively denounce. Every man that he has mentioned in his paper is a man with no reputation in surgery. You don't hear the names of Dean Lewis, Crile, or the Mayos used in connection with the treatment of hernia by injection. It is a good deal safer for you to have a herniotomy done than to have an injection for hernia.

Dr. A. M. Rowley (Hartford): In regard to the injection treatment of hernia, I am against it. Not when used by men who have such good surgical technique as Dr. Patterson and who have written other papers upon hernia, as Dr. Patterson has, which have added to our medical literature and knowledge, and who have such a knowledge as he has of the anatomy of the inguinal canal. But I am against it because it is going to fall into the hands of people who should not use it. That I am positively sure of. The wheel is turning. The cycle of sclerosing injections is now in view. Dr. Patterson carefully selects his case and the case he selects is an indirect inguinal hernia. By that, of course, I presume he infers that that is an acquired inguinal hernia because I do not think that he would want to take chances on injection with a congenital hernia. He says it must be a reducible hernia, presumably one in which he can reduce the bowel. Of course, he does not know whether he has omental adhesions and he certainly is not sure that he can reduce the sac. The dangers he has spoken about are thrombophlebitis and peritonitis. We have had severe cases of the former in this vinicity, and the latter will occur quite frequently if the general run of physicians, as well as surgeons, take up this form or treatment. The proof of this treatment can only come after five years of follow-up. If the injection treatment is applicable anywhere it should be to the small recurrences that we may have or the small splits in the muscles that may occur after a person has had an operative procedure; and, again, as a prophylaxis in those cases where there is but a little bulging of the ring, a preformed congenital sacrum and danger of having hernias through it.

Dr. W. E. Hartshorn (New Haven): I asked a friend of mine who is a New York Central surgeon and connected with the Hospital for Ruptured and Crippled, about their success with this treatment. They had tried it in about 75 cases, using various types of solutions. He said they were not using it any more, that it had been most unsatisfactory, and that they consider it in many ways a very dangerous thing to use.

Dr. P. F. McPartland (Hartford): I started to use this method three years ago next month. Since that time we have carried through to completion 267 hernias, 31 additional that are either now under treatment or that have stopped the treatment for one reason or another, and we have examined another additional 143 that we were consulted about and either advised against the treatment or the patient rejected it. The first complication occurred on the fifteenth case, a paralysis of the anterior crural nerve. We had five of those. We discontinued the fluid solution, changing to a tannic acid solution. After 75 more cases within one week we had two more cases of anterior crural paralysis. The fifth one with this complication occurred two weeks ago today. In one of these patients we had atrophy of the vastus externus muscle. All these paralyses except the last one cleared up after a little while. The second complication was pulmonary embolism, occurring six to eight months after beginning this method. This patient recovered. A second pulmonary embolism occurred about a year later, milder than the first. This second one occurred after injecting novocain. We have had two hydroceles colli develop. The first was aspirated and injected with quinine urethane, the second left alone. Both disappeared. We have seen 19 recurrences from those 267 patients already injected. None of these recurrences were large hernias. We operated on one patient one year after injection and were unable to get a finger in his inguinal ring. Two cases operated upon after a series of injections presented the same condition: a segment of omentum had become adherent to the sac about one inch from the internal ring, effectively preventing closure. We do not advise, as a rule, the injection of post-operative hernias. We have cured a few of them but usually it is unsuccessful and much more difficult. Eiderly individuals do not recover as quickly as young ones. They require many more injections. We have tried seven different solutions, none of them wholly satisfactory. This treatment for hernia is going to come into vogue regardless, I believe, of the opinion now held about it by most surgeons. I do not believe sufficient time has elapsed as yet to tell the full value of the treatment. It is difficult to tell whether the patient is cured or not after he has been injected. Operation does not cure all hernias any more than injection does.

Dr. Patterson: I feel very humble about saying anything in the presence of Dr. McPartland, who has had so much more experience than I have had.

My only object in presenting the subject was to bring it out, as I said, into the light of day because it has been rattling around in the cellar and everybody has been afraid to say anything about it. If anyone mentioned it, he was almost ostracized.

I am not advising for it or against it. I am simply trying to find out for myself whether or not it is satisfactory. I am not advising patients to have the injection treatment instead of an operation, because I prefer to operate on them. However, there are certain patients who will want to wear a truss. It has been conservatively estimated that one out of every fifteen men has a hernia and of these hernia patients, over fifty per cent are wearing trusses and are not seeking operative repair.

With regard to the objection that Dr. Verdi spoke of, as to the men who have reported on this subject, I think Dr. McPartland answered that to some extent in referring to Bratrud and his colleagues at the University of Minneapolis. It is also being carried out at the Boston City Hospital. It is being carried out at the Gouverneur Hospital in New York. There have been cases injected at the Mayo Clinic. Practically all over the country this work is being carried on by careful and conscientious men. There results will be tabulated in time.

This fall there will be two important pieces of work coming out, one by Dr. Bratrud and his associates, and one the result of the studies made at the Hospital for the Ruptured and Crippled, that Dr. Hartshorn spoke of. That was the New York hospital that I referred to in my paper. Even there, I was amazed at the type of hernias they were attempting to treat by the injection method, the one, for instance, that had had four recurrences, a great big scrotal hernia, and they had this patient up-ended in bed in order to keep his hernia reduced.

The hernia statistics that we have, as I mentioned before, I think are entirely misleading. If you ask a surgeon what his percentage of recurrences is he probably will say, "Oh, not over five at the most."

One of our most prominent surgeons reporting in "Surgery, Gynecology and Obstetrics" about five or six years ago on the ideal operation for inguinal hernia said that the multiplicity of procedures used indicates the fact that no one is satisfied with his results, and they are all striving to perfect some special technique that will give them better results. This particular surgeon wrote on the ideal operation and he described it in detail. Then he went on to say that of three thousand operations he only knew of eleven recurrences. Think of that: eleven recurrences in three thousand cases is a most remarkable record.

It makes you tired to see such articles by our leading surgeons and teachers because one of the first careful studies that was made was by Dr. Taylor at Johns Hopkins quite a few years ago, and his results were simply amazing. He found — I believe I am approximately correct — that in direct hernias the percentage of recurrence was twenty-eight. Think of it! In indirect hernia, he found the recurrences were fifteen per cent. These patients don't come back to you. They go some place else or, what more often happens, they buy trusses.

As I said before, the type of hernias that I believe are suitable for treatment by this method are just the simple indirect inguinal hernias that can be easily reduced.

The trouble is that these preparations are being advertised in all the journals at the present time, and people are inclined to think that it is a simple method and to start treating by this method. It is quite a complicated technique and requires a very intimate knowledge of hernia pathology.

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INJECTION TREATMENT OF HERNIA

In March 1936 the Council on Pharmacy and Chemistry of the American Medical Association addressed a questionnaire to a selected list of hospitals, with a view to obtaining data on the injection treatment of hernia. This method is now being exploited actively to the medical profession by many purveyors of mixtures of one type or another, used in this method of treatment. In the questionnaire, information was sought particularly as to the extent of this practice, its safety and its effectiveness, the extent of unfavorable complications, and the nature of such complications.

Replies, which were received from most of the institutions addressed, indicated that the method is not used in the majority of the hospitals consulted and that it is considered safe and effective by those using it, although many qualified their opinion as to safety and effectiveness by specifying careful selection of cases. Several unfavorable complications were recorded, including mild infections, the development of fibrous masses of cutaneous tissue, and failure of the method to correct the hernia. In addition, there were some instances of painful scarring, occasional cases of swelling of the testis, and a few instances of subsequent impotence. In two cases, gangrene followed the use of the method.

The solutions used by various observers included sodium norrhuate; a mixture of phenol, alcohol and oil of thuja; and several mixtures containing tannic acid or tannic acid derivatives. In some of the institutions, preparations of proprietary character, such as the Pina-Mestre solution, Galtanol and Proliferol, were used.

Opinions varied as to the number of cases suitable to this method of treatment. In those most favorable, from 12 to 15 per cent of cases were treated by the injection method. Other institutions reported that the majority of cases of hernia in the outpatient clinic were treated by this method.

Several reports concerned surgical operations on patients who had been formerly treated by the injection method ineffectively. The sur-

geons report, however, that the previous injections had not made later surgery more difficult.

One of the complications involved in the introduction of the method has been the attitude of the insurance organizations, workmen's compen sation boards and similar groups, in relationship to bearing the cost of such a procedure. Another complication has been the fact that the method has been taken up by osteopaths and even by laymen, and that some of the difficulties that have arisen are due to the results of such nonmedical use of the injection method.

In some institutions in which physicians especially well trained have been put in charge of the injection method as administered in the outpatient clinic, the results seem to be quite satisfactory not only to the special worker but also to the members of the surgical staff who have followed these cases. The most unfavorable opinion seems to be that there may be more recurrences attending the injection of the indirect inguinal hernia than follow under adequate operative care.

It must be borne in mind, however, that these are ambulatory patients and that this type of care permits continued industrial employment as well as releasing a considerable number of beds for patients definitely requiring surgery.

Subsequent to the issuance of the questionnaire by the Council on Pharmacy and Chemistry, a letter was addressed to The Journal of the American Medical Association by some fifty physicians in good standing who have been using the injection method, citing their opposition to some of the criticisms contained in the questionnaire and emphasizing the fact that suitable selection of cases, injection by experienced practitioners, and suitable control of the patients treated make the injection method just as safe as, if not safer than a surgical procedure. These fifty physicians are convinced that the injection method is applicable and effective in the majority of cases of hernia, that it is often applicable when surgery is inadvisable and vice versa, and that it is just as free from complications and dangers as are surgical procedures. It is their opinion that the method will develop greater usefulness as it is more definitely understood, as the solutions used are more capably investigated and standardized, and as the limitations and uses of the method are more completely worked out.

With this point of view the Council on Pharmacy and Chemistry is inclined to agree. Nevertheless, the following considerations should be borne in mind not only by those expert in the injection method but also by the medical profession in general: The attempted cure of hernia by the application of the method of adhesive inflammation is not new. The method has, however, failed to establish itself as a routine method for the treatment of hernia and is still in an early experimental stage. In view of these facts, surgeons who practice this method should realize the dangers from an ethical, a legal and a financial point of view.

Those who inject into the bodies of their patients mixtures of unknown composition, not suitably standardized by any unprejudiced agency, and capable of bringing about definite pathologic changes in living, healthful tissue, may be subjecting themselves to unwarranted risk of legal difficulties should unfortunate results ensue. Those who continue to experiment with the injection method for the treatment of hernia with a view to standardizing this method will do well to use only such mixtures as may be prepared under their own direction in the laboratory of the hospital with which they may be associated, or mixtures prepared by competent pharmacists according to prescriptions prepared by the physician himself.

Jour. A. M. A., Sept. 26, 1936

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According to the Journal of the Medical Association of the State of Alabama, the legislature of that State on the final day of its most recent session "enacted into law a state-wide statute, which, while not to be viewed as a model of perfection because of certain necessary compromises, should eprmit of an earnest beginning to be made in the control of rabies in this State". The new law aims to reduce the stray dog population in Alabama, to protect the remaining dogs in so far as possible by vaccination, to prevent the spread of rabies to other livestock, and to prevent the spread of rabies to human beings. Four persons in Alabama died from rabies in 1936.

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The White Plains Hospital has passed its fifth consecutive year without a single maternal death. The record covers 1263 maternity cases.

—*N. Y. State Jour. Med., March* 1, 1937

Association of Connecticut Tumor Clinics

Proceedings of Meeting Held at Bridgeport February 12, 1937

MALIGNANCY OF THE SKIN

(Lantern Slide Demonstration)

Ellwood C. Weise, M.D.

The series which I am about to present is not one selected because of a favorable response. Such a series would not give a true picture of the situation. It does however, consist of a resume of one hundred and fifty-one consecutively treated malignant lesions of the skin occurring in private patients and comprises various types of malignancy which in turn were treated by a variety of methods as we shall see in a chart to be presented later.

Biopsy was so generally employed that we may assume for all practical purposes that all cases were proved by biopsy. Essentially all single lesions were biopsied. In such conditions as Bowen's Disease or Multiple Superficial Epitheliomatosus where several lesions are present in the same individual, a number of lesions in a given case were biopsied. The skin punch or complete excision were the usual methods of biopsy employed.

Before proceeding with the lantern slide demonstration*, I should like to point out that practically every case has been followed from one to seven years. The slides about to be shown have been picked to illustrate a few points as to diagnosis and therapy. The first one (Fig. 1) might be said to illustrate the prophylaxis of malignancy, though the condition which it represents is not in itself malignant.

This slide illustrates a well defined patch of leukoplakia of the lower lip which is considered a definite precancerosis. If left untreated this condition will often eventuate in a squamous cell carcinoma. This type of lesion is most often seen in pipe or cigarette smokers and can readily be destroyed by electrodesiccation under local anesthesia, thereby removing a potential source of a serious malignant process. Such was the procedure followed in the case illustrated above.



Fig. 1. Leukoplakia of Lower Lip.

The second slide exhibits a small basal cell epithelioma of the tip of the nose. Note the raised infiltrated border surrounding the small central ulcer. The object in showing a photograph of so small a lesion is to again bring home the fact that physicians themselves are often responsible for delay in the treatment of malignant conditions. A patient with a lesion so

small as this one is often given a prescription for an ointment and is told to go home and "forget about it". This impression of insignificance is often so indelibly stamped on the patient's mind that, when the time arrives when another physician advises radiation or some adequate form of treatment, the patient is reluctant to take his word for it and either refuses treatment or accepts it with a kernel of doubt tucked away in the back of his mind.



Fig. 2. Small Basal Cell Epithelioma of Nose.

The lesion shown in Figure 3 is an extensive basal cell epithelioma of the forehead and scalp. It demonstrates the marked grade of resistance to a variety of forms of therapy which is occasionally encountered in treating these lesions. When I first saw this patient the process was much more extensive than it is seen in this photograph. The lesion had already been treated with radium and X-rays. With hardly anything more than palliation in mind I employed further X-ray therapy. The lesion improved to such an extent that an operation was undertaken which consisted of complete excision of the old scar together with the external plate of the skull in this region. Despite this radical procedure new islands of epitheliomatous change have appeared in the new scar and further extension to bone has occurred. Electrodesiccation has been employed to destroy some of these recurrent areas but much serious consideration will have to be given to future therapy in this case.



Fig. 3. Extensive Basal Cell Epithelioma of Forehead with Bone Involvement.

Figure 4 shows a typical basal cell epithelioma of the nose. It is difficult to conceive that anyone would treat over a long period of time this lesion with ultraviolet light and superficial cauterization, but such had been the case. On his first visit to my office this patient received one massive dose of X-ray to the lesion with results shown in Figure 5. The epithelioma completely disappeared and was entirely healed in six weeks. The after-treatment photograph was taken two years after treatment and shows the results obtained.

A very unusual type of multiple basal cell epithelioma is shown in Figure 6. This case was presented at a meeting of the New England



Fig. 4. Basal Cell Epithelioma of Nose before treatment.



Fig. 5. Same Lesion as shown in Fig. 4 as it appeared after treatment.

Dermatological Society. There was much discussion as to whether the seventeen satellite lesions (not all of which can be seen in this photograph) in addition to the large original lesion on the cheek were metastatic in the skin. This would be most unusual as it was brought out at that meeting that there were only about a half dozen authentic cases on record in which basal cell epitheliomas had metastasized. Biopsy of the original lesion on the cheek gave no clue as to its origin, but the biopsy of a distant lesion on the neck showed that this lesion at least had arisen from the epithelium of a hair follicle. This case was therefore not considered as one evidencing skin metastasis. It had apparently arisen from multiple distinct foci (nevoid in character?) which, under some unknown biologic



Fig. 6. Unusual Case of Multiple Basal Cell Epitheliomas on Cheek and Neck.

stimulus, had taken on malignant characteristics. The original large lesion was treated by X-rays. The smaller lesions were treated by electrodesiccation. When last observed all lesions had healed and there was no evidence of metastasis.

Figure 7 shows a rather large recurrent squamous cell epithelioma of the outer side of the foot. This lesion had recurred to its present size within nine months after surgical excision. One

massive dose of X-ray was administered and resulted in complete recovery, as shown in Figure 8. This photograph was taken eighteen months after X-ray treatment was given and shows an excellent cosmetic result with essentially no



Fig. 7. Squamous Cell Epithelioma of Foot (Recurrent after surgical excision).

scarring. Surgery in this case could hardly accomplish such a result because adequate surgery in a squamous cell epithelioma in this location would require extensive removal of tissue, very probably including many of the deeper structures. Therefore radiation therapy, either by X-ray or radium, was the method of choice.

Figure 9 demonstrates the fact that youth is not immune to malignant cutaneous lesions. Here is a rapidly growing squamous cell epithelioma in a girl 23 years of age. The lesion itself was clinically very characteristic of a molluscum contageosum and mistakenly treated as such by electrodesiccation and curettage. It recurred and in three weeks had attained the size shown in the accompanying photograph. Its true nature was then disclosed by biopsy and it was subsequently treated with radium. Complete recovery occurred within a few weeks.



Fig. 8. Same as Fig. 7 after treatment with X-rays.



Fig. 9. Squamous Cell Epithelioma in a young woman, 23 years of age.

A highly malignant type of squamous cell epithelioma is shown in Figure 10. This lesion when first seen was a raised infiltrated tumor about the size of a bantam egg situated on the dorsum of the hand. It is peculiar how some individuals have a predisposition toward carcinoma. In addition to the lesion shown in this figure, this patient had two other types of malignancy of the skin,— a typical basal cell epithelioma of the nose and a placque of Bowen's



Fig. 10. Squamous Cell Epithelioma of Dorsum of Hand.

Disease in the right clavicular region. In a local hospital the lesion on the dorsum of the hand was excised with the endotherm knife but eventually metastatic glands appeared in the epitrochlear and axillary region which necessitated amputation and disarticulation of the arm at the shoulder joint. As far as I can determine (after several years) this patient is still alive and free from recurrence.

Figure 11 shows an ulcerating baso-squamous cell epithelioma in the preauricular region. Figure 12 shows the results obtained with one massive dose of X-ray. The lesion has entirely healed with a soft pliable scar. There has been no evidence of recurrence after a period of three years.



Fig. 11. Baso-squamous Cell Epithelioma of Preauricular Region.



Fig. 12. Recovery with Pliable Scar after X-ray therapy.

The accompanying table is self-explanatory. Of the one hundred and fifty-one consecutively treated malignant lesions of the skin there were 89 basal cell epitheliomas, 13 squamous cell epitheliomas, 10 mixed or baso-squamous cell epitheliomas, and 39 lesions of Bowen's Disease.

Table 1. Represents Types of Malignancy, Mode of Therapy Employed and Results Obtained.

Type of Treatment	—Type of Lesion— Basal	Squamous	Mixed	Bowen's	Total	Recurrences
X-ray	64	3	8	21	96	B B S S M M **
Desicc.	12	2	..	14	28	..
Excis.	1	1	..	4	6	..
Combined	12	7	2	..	21	B
Total	89	13	10	39	151	7

**B: Basal Cell; S- Squamous Cell; M: Mixed or Baso squamous Cell.

These were treated by a variety of methods which included X-ray therapy, electrodesiccation, excision, and a combination of either excision plus radiation or electrodesiccation plus radiation. When X-ray therapy was used single massive doses were employed which varied between two and one-half and five erythema dose (approximately between 1000 r and 2000 r). The average dose was three and one-half erythema doses (approximately 1400 r). In a few of the cases it was necessary to give a second treatment in about twelve weeks after the first dose.

Of the various types of lesions 96 were treated by X-ray alone, 28 by electrodesiccation alone, 6 by excision alone, and 21 by a combination of either excision plus radiation or electrodesiccation plus radiation. After painstaking care in the treatment and follow-up of these patients it was found, that in all seven had recurred. The recurrences were divided as follows: 3 basal cell, 2 baso-squamous and 2 squamous cell types.

CONCLUSIONS

1. Minute lesions deserve significant attention and unrelenting destruction.

2. We should try to impress fellow practitioners with the importance of early diagnosis and treatment. To ignore or consider these lesions insignificant and pass them along with some ointment which will do no good and may do harm is to be deplored.

3. These lesions demand some proved method of attack whether it be X-ray, radium or some surgical procedure such as *wide* excision or extensive electrodesiccation. *Tampering with these lesions is dangerous.*

4. Biopsy, I feel, should be freely but judiciously used for accurate diagnosis so that a proper selection of therapy can be employed.

5. The method of treatment is modified by the histopathology present and the size and location of the lesion.

6. In my experience radiation by X-ray has proved to be the most useful single modality of therapy. What has been said of X-ray applies equally to radium, though X-ray is more rapid of application and probably more useful in the larger lesions. Either of these agents give the best cosmetic results.

7. Wide surgical excision is not always practical because of the location of the lesions, such as on eyelids or over tendons as in the foot case shown. It often leaves unnecessary scarring. However, in certain instances it must be employed.

8. Electrodessication is often useful but only if adequately carried out in selected cases.

*Because of limited space only a few of the original slides shown accompany this article. These slides are in part taken from the series of one hundred and fifty-one cases herein presented. Others have been selected from clinic cases not included in this series.

144 Golden Hill Street Bridgeport, Conn.

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ABSTRACT ON INFORMAL DISCUSSION ON RECTAL CANCER

George E. Binkley, M.D.

The chief factors that influence results in the treatment of rectal cancer are early diagnosis, status of disease at time patients are referred for treatment, selection of method of treatment for the given case and technique of application of the selected methods.

It is impossible to overemphasize the early diagnosis in rectal cancer. A much higher percentage of clinical cures would be possible if this disease was recognized more often in its early stages. It is questionable if fifty per cent of all tumors have not progressed beyond the stage of complete eradication before a definite diagnosis has been made. Late recognition will be lessened when the laity is educated to seek medical advice for all rectal symptoms, and when the importance of detailed rectal examination is accepted by the profession as a part of the general physical examination of all patients complaining of rectal or indefinite intestinal symptoms.

Early symptoms of intestinal cancer are indefinite. They closely resemble symptoms frequently associated with a number of inflammatory conditions. Symptoms associated with small lesions may consist of a change of bowel habit such as constipation, increased constipation or a lessening of constipation, small amounts of blood in the stools or on the toilet paper, an increased amount of mucus, foul-smelling discharges of gas, flatulence and a feeling of general malaise. Symptoms associated with advanced disease, when the tumor has become a large sloughing mass, require no special emphasis. Because of the mildness and variation of early symptoms it is usually impossible to make a definite diagnosis of rectal cancer by symptoms alone. Rectal and anal symptoms are best interpreted as indicating pathology of unknown origin. Definite diagnosis can be made only after complete examination.

Rectal examinations consist of inspection of the perianal skin and outlet of the anus, palpation of the anus and rectum with the index finger, and inspection of the anal canal, rectum and lower sigmoid by means of an electrolighted sigmoidoscope. Proctoscopic and sigmoidoscopic examinations are office procedures which cause the patient no marked distress. Positive and differential diagnoses of rectal tumors is possible by submitting a small section for histological study.

Patients with rectal cancer may be separated as to treatment and prognosis into operable or favorable and inoperable or unfavorable groups. This classification is based largely upon the extent of disease and the ability of the patient to withstand treatment. Patients with extensive local disease, which has invaded adjacent organs, and those with wide-spread metastatic disease are usually considered inoperable. Also included in this group are those patients who are unable to withstand sufficient treatment for eradication of the disease due to old age, debility, chronic constitutional diseases, etc. The operable or favorable cases comprise that group in which radical treatment offers either a complete clinical cure or the highest degree of palliation. This group of operable cases may, for convenience of description of treatment, be subdivided into favorable operable and border-line operable types.

The treatment of choice for the inoperable group is radiation therapy. By radiation therapy is meant external applications of roentgen and radium rays and internal applications of gold filtered radon seeds. There is no routine technique or uniform dosage of the physical agents in such cases. Each case is treated in accordance with the extent of disease, progress of the case and ability of the patient to withstand treatment. Practically all inoperable cases are benefitted by external therapy. Interstitial implantations are required only in the most favorable of the inoperable group. Colostomy is no longer employed routinely. An artificial anus is constructed only when obstruction is a troublesome factor, and when such a procedure offers additional advantages for radiation therapy.

Treatment of the favorable operable group is more encouraging as usually over fifty per cent of such cases are alive and clinically free of disease after five years. Treatment in certain cases must be carefully selected while other patients are amenable to a number of forms of well recognized procedures. Methods of procedure worthy of consideration are, one-stage abdominal perineal resections, two-stage abdominal perineal resections, perineal resections with or without colostomy and radiation therapy. The choice of procedure will depend upon the location of the tumor, extent and type of disease, ability of the patient to withstand treatment, available facilities and experience of the operator.

A number of operable cases may be treated successfully by radiation therapy alone, and retain a normal or practically normal functioning terminal intestinal tract, when adequate facilities for this type of treatment are available

Cases must be carefully selected for radiation therapy. Those considered most suitable are the very small, local, accessible rectal cancers, and early squamous cancers of the anal canal. Tumors of large size may, at times, be included in this group. Radiation therapy consists of external applications of roentgen and radium rays or a combination of both types of rays. The divided dosage technique is now routinely employed. About two weeks after external treatments are completed, gold filtered radon seeds are implanted into the tumor mass. A dosage of radon sufficient for complete devitalization of all malignant cells is necessary in order that a good result may be obtained.

A one-stage abdominal perineal resection is the ideal surgical method of treatment for good operable risks. It is suitable for lesions located from the anal canal to the lower sigmoid. It permits a wide dissection of the lymphatic drained area as well as removal of a large section of the bowel. Operations are completed at one time and the hospitalization period is from three to four weeks unless complications arise.

Two-stage abdominal perineal resections permit dissections similar to the one-stage procedure but require two operations for their completion and a long hospitalization. Of a number of two-stage operations advocated, the technique described by Lahey of Boston is at present very popular with the average surgeon. Despite objectionable features of two-stage procedures, they are advisable when dealing with medium surgical risks and large infected tumors at the recto-sigmoidal junction.

The advantage of perineal resections is the low operable mortality. Their greatest usefulness is when dealing with poor surgical risks. Good results will be obtained in this type of procedure if cases are properly selected, and it is most applicable for tumors of low grade malignancy, situated in the lower rectum within reach of the index finger. Perineal resections are usually preceded by a double-barrelled abdominal colostomy, except in very obese patients, where such a procedure is considered a major operation.

Border-line operable cases present a difficult problem. Radical dissections are frequently followed by early recurrence due to incomplete removal. It is in this type of case that the combined use of radiation therapy and radical surgery is advisable. Such tumors, situated at the rectosigmoidal junction, usually receive preoperative external irradiation about two weeks before the operation. This preoperative therapy produces favorable changes in the tumor mass such as lessening the ulceration and infection and reduction of size of the tumor with increased mobility. Advanced operable tumors in the lower rectum may be treated by colostomy, radiation therapy and perineal resection. Patients are given external therapy as the first step of treatment. A colostomy is then constructed. As soon as the general condition of the patient will permit, interstitial ir-radiation in the form of gold seeds implanted into the tumor mass, is administered. The seeds are placed chiefly in the outlying areas in order to devitalize any malignant cells that may remain after resection. Operations are carried out ten days to two weeks following the implantation of radon. Preoperative therapy of this nature does not increase the operable mortality of the perineal resection nor make the operation more difficult, providing that a period of not more than two weeks is allowed to elapse between procedures.

DISCUSSION

DR. SHEA (Bridgeport): To me carcinoma of the rectum is a real problem. Speaking as a general surgeon, I consider that the radical operation for carcinoma of the rectum is as formidable an operation as one is called upon to perform. In my opinion the abdomino-perineal operation is the operation of choice although at times because of the patient's lowered vitality it becomes necessary to do this operation in stages. Many of the cases which I have seen have been so far advanced that radical excision was out of the question and a colostomy was the only alternative. From the standpoint of cleanliness and convenience for the patient, I believe that an abdominal colostomy is more desirable than a perineal anus.

Surgery for carcinoma of the rectum will never be ideal until the sphincter can be preserved. When we sacrifice the sphincter we lose one of God's greatest gifts. If the patient is seen early enough, carcinoma of the rectum, because of its accessible location, should be most suitable for radium therapy and it is to be hoped that in time all cases will be so treated.

Dr. C. L. LARKIN (Waterbury): This discussion of cancer of the recto-sigmoidal region has been a very interesting one to me. I am surprised that Dr. Lawlor could find so many cases of rectal and recto-sigmoidal carcinomas at St. Mary's Hospital. At Waterbury Hospital I could uncover only nineteen cases during the last five years that were true bonafida carcinoma cases with positive diagnoses.

Our results at the Waterbury Hospital should be quite interesting because I believe that the surgeons are as good

or better than the average surgeons that you will find doing general surgery here in Connecticut; but our results in this particular line of work, that is carcinoma of the rectum and sigmoid, are certainly pretty bad. Only one of these nineteen cases was subjected to a curative operation, i.e., colostomy and resection. This is particularly astounding when you consider that at the Lahey Clinic and the Massachusetts General Hospital there is an operability of around 75% and they are obtaining five year cures of something like 30% while we have only one patient who is still living at the end of two and one-half years.

We performed ten palliative operations, that is colostomies, and over 50% of these cases died after two and one-half months and only one of these cases is living after a period of two and a half years. This makes one wonder when we consider the report of Dr. Ernest Daland which shows that 50% of the colostomy cases live fourteen months while we have only two colostomy cases that lived fourteen months.

Out of five cases at Waterbury Hospital that had X-ray and radium treatment there were no immediate mortalities. One died eight months after treatment, two more died soon after this and there are two living, one one year and one three years after treatment. It is doubtful how much good the X-ray and radium has really done to these patients as far as life is concerned when Dr. Daland has shown that out of one hundred cases of carcinoma of the rectum and sigmoid which were not treated 50% of these were still living at the end of fourteen months, a curve which is very comparable to the curve found in the deaths from colostomy. One patient lived four years without treatment.

I mention these poor results that we have had at the Waterbury Hospital simply to ask what is the reason for these results and what can be done about them. The reason for the bad results is that we do not have a sufficient number of cases, the average being four or five admittances a year, so that any one doctor can gain facility in the handling of them. Of the nineteen cases at Waterbury one doctor had six, another had five, another four and four other doctors had one case a piece. Certainly with such an inadequate number of cases no one doctor could ever hope to get comparable results with those obtained in the cancer clinics such as the General Memorial Hospital in New York, Pondville in Massachusetts, Massachusetts General and the Lahey Clinic, etc. I would like to ask Dr. Binkley if there is in his opinion any etiological factor which underlies cancer of the rectum and if there is any way that cancer of the rectum may be prevented?

The results here in Connecticut are going to be the same unless our general surgeons can have special training in this line of work. The question is how is one to obtain this experience? It seems to me that the only way to obtain this experience is to get it like they did in Massachusetts at the Pondville Cancer Hospital. This hospital was started ten years ago and it is under the supervision, for the most part, of the doctors and surgeons who are attending at the Huntington and Massachusetts General Hospitals. Ten years ago these men were getting results quite comparable to those being obtained at the Waterbury Hospital. Their operative mortality was high and their operability low; and their five year cures were scarce. Coincident with the formation of this cancer hospital and coincident with the increase in technical ability of these attendings the mortality decreased and the operability increased until they reached the standards of today. It really seems to me that we here in Connecticut are just about ten years behind Massachusetts in the treatment of cancers of the rectum and sigmoid and I, personally, think that we are going to stay ten years behind until we start a cancer hospital of our own where we can gain the necessary technical knowledge in handling these cases.

In closing I would say that the next meeting of the Association of Tumor Clinics will be held in Waterbury on Thursday, April 22nd at four o'clock. The subjects will be "Carcinoma of the Cervix" and "Carcinoma of the Fundus of the Uterus". Directly after this meeting dinner will be served and we propose to obtain the services of an outstanding surgeon who will talk on "Cancer of the Ovaries".

DOCTOR LAWLOR (Waterbury): In the last five years St. Mary's Hospital, Waterbury, Conn., we have admitted approximately 38,600 people. Of that number, there were fifty cases of carcinoma of the rectum and recto-sigmoid. Of these fifty, twenty-seven were operated upon. This would ordinarily be a rather high percentage of operability, but an analysis of the operations done, shows that seven of these were colostomies done in vain attempts to relieve terminal acute obstruction; and six were merely exploratory laporatomies. So that of our fifty cases, only fourteen were truly operable. In these fourteen there was an immediate operative mortality of three. Three others have since died. Eight are still alive. Two have recurrences. Six are apparently well. These figures accentuate the necessity of getting these patients to the hospital much earlier than we get them now.

In our group of cases there were several very interesting occurrences. There is one case in which the rectum was removed through the vagina and perineum, the sphincter preserved and the sigmoid brought down and fastened at the anus, resulting in recovery and good functional result. There are two cases of unusual forms of metastasis which we usually visualize as following the lymph stream. The first case, a metastasis in the rectum following a resection of the transverse colon for carcinoma three years previously. The second case, a case operated on for cerebellar tumor which on microscopic section resembled an intestinal carcinoma. Autopsy on this case revealed a non-obstructing carcinoma of recto-sigmoid, no lymph involvement but a patent foramen ovale.

We do colostomies only as preliminary to a resection or to relieve acute obstruction. Frequently in acute obstruction after colostomy, the bowel will start moving through the anus again, demonstrating that the completeness of obstruction was due to edema and also that the bowel can function through a very narrow lumen. In one such case a glycerin suppository inserted in the anus appeared five minutes afterward at the colostomy, demonstrating that peristalis is normally usually reverse in the terminal bowel.

We have not used radium much for treatment. The X-ray has been used for inoperable cases but does little except upset the patients.

State Department of Health

STANLEY M. OSBORN, M.D., Commissioner

THE STATE MEDICAL SOCIETY EMPHASIZES PHYSICIANS' DUTIES

William C. Welling, Director
Bureau of Vital Statistics

In 1924, The State Medical Society created the Committee on Public Health and Education. This committee was to be an advisory committee to act with the state commissioner of health, on his request, relative to any public health measure upon which he may desire counsel. This committee was to act similarly with the state commissioner of education.

"Proceedings of Connecticut State Medical Society, 1924, page 64."

In the proceedings of 1925, on page 48, the first report of this newly created committee is given. Among the important subjects considered were:

1. Methods of reporting occupational, venereal and contagious diseases.
2. State infirmary for chronic diseases.
3. Schick test and diphtheria immunization.
4. Date for issuing annual physical examination blank.
5. Consideration of the cancer problem. The committee recommended that the society use its influence to the end that the legislature might appropriate $10,000.00 for cancer work.

In 1927, Proceedings page 43, the committee noted the importance of reporting occupational diseases, called attention to the definition of stillbirths which became statute law by act of the legislature, emphasized the value of immunizing against diphtheria by toxin-anti-toxin and gave as its concluding paragraph:

"Fourth, Many physicians of the state are failing to send in their birth certificates, or are returning them to the registrars at a very late date. Hence, it is emphatically urged by your committee that each member of this society report his births promptly and carefully. Failure to do this may cause inestimable detriment to the child throughout his life by failing to give him the social and civil recognition which are his right."

In 1928, Proceedings, page 43, the committee reported the following as of importance:

1. The society endorse the summer round-up work of Connecticut Congress of parents and teachers.
2. The advisability of instituting a state survey of puerperal mortality.
3. That members of the society lay greater emphasis on the reporting of births and occupational diseases.

Connecticut law requires that each physician having professional charge of the mother at the birth of any child shall file a certificate of birth within ten days, with the registrar of the town in which such birth occurred.

For several years the state department of health has kept a record of certificates which have been filed a month or more after the birth, thereby giving generous latitude to the ten day requirement. These records were prepared each month. If a physician's name appeared on three successive lists or if on any one month's list his name appeared as filing two or more certificates over thirty days late, a letter was sent to that physician.

Since July 1, 1934 up to December 31, 1936, the names of 97 physicians have been entered on the late lists. To many of these it has been necessary to write only a single letter, and thereafter certificates have been filed promptly. On the other hand, as many as 11 letters have been written to a physician in this interval. When this series of 11 letters was started, 46 late births were filed in 1934, 12 in 1935 and 7 up to date in 1936 by this physician.

A table given below shows the number of doctors reporting late births, by months, for 1936, together with the degree of lateness and the number of total late births. As a physician may report several late births, the number of doctors

who are listed as late in reporting, will not in general be equal to the total late births.

September is a month to be noted in particular. School opens, children entering are required in many cases to bring birth certificates. If there is none on file, the physician in attendance will file the record. This will account for the large group in September for certificates late by five years and over.

The procedure which was first started in 1934 was modified in 1936 to include not only doctors reporting more than 30 days late and less than a year, to include all physicians reporting births late no matter how long the interval might have been. The doctors reporting late for 1936 therefore include physicians who may have reported births more than 5 years late and such physicians were not listed in 1934 and 1935.

	No. of drs. reporting late births	Late births 1-5 mos.	Late births 6-11 mos.	Late births 12-23 mos.	Late births 24-35 mos.	Late births 36-47 mos.	Late births 48-59 mos.	Late births 5 yrs. & over	Total Late births
1936									
January	19	22	—	1	-	-	1	2	26
February	27	32	13	5	1	2	-	6	59
March	18	21	1	3	1	-	-	4	30
April	26	24	1	1	-	-	-	4	30
May	31	24	1	1	2	-	2	10	40
June	25	27	3	4	1	-	1	11	47
July	31	30	2	7	-	2	1	17	59
August	36	27	2	3	2	-	2	14	50
September	38	13	4	5	1	1	3	25	52
October	27	14	2	1	2	1	1	13	34
November	17	13	2	-	-	-	-	12	27
December	21	11	5	-	-	1	1	14	32
Total	316	258	36	31	10	7	12	132	486

Below is given a table setting forth the number of doctors who have reported late each month since the present study was instituted beginning in May 1934:

Doctors Reporting Late

	1934	1935	1936
January	—	23	19
February	—	19	27
March	—	24	18
April	—	23	26
May	55	20	31
June	22	19	25
July	16	27	31
August	47	36	36
September	29	25	38
October	27	18	27
November	26	15	17
December	29	16	21
No. of doctors reporting late	251	265	316
No. of late Births	446	366	486

It is to be noted that for 1936 a total of 486 births were reported late and these include 132 reported more than 5 years after birth. If we deduct this total from 486 there will remain 354, and this figure will therefore be comparable with the figure for 1935. There has evidently been a slight improvement in 1936 over 1935 and there has certainly been an improvement of 1936 over 1934, inasmuch as the figures for 1934 are only for 8 months of the year.

In the early days of birth registration, no doubt a birth certificate was looked upon as a record of potential or possible importance. In the modern organization of society, this potential importance is rapidly being replaced by dynamic necessity.

Many industries require employees to submit birth records. It is necessary to establish date of birth for any person to participate in the state's assistance for the aged. Indeed, for many purposes, such as securing a passport, proving

legitimacy, inheriting property, being made an elector, obtaining a motor vehicle owner's license, a certificated birth record may be of inestimable value.

Many inconveniences confront the person for whom the physician attending birth has filed no birth certificate. He must endeavor to get a certificate from the physician — and this has its elements of embarrassment to all concerned.

State law requires that when any registrar has accumulated a sufficient number of births, marriages and deaths, they shall be arranged chronologically, preceded by an alphabetical index, and then permanently bound. A record received after such binding, must either be pasted in its proper chronological place or bound in the next volume with a cross reference in the first volume. Needless to say this causes registrars much inconvenience.

While it has nothing to do with late births, still it should be pointed out that colored inks are illegal, state law requiring birth, marriage and death records to be made out with black unfading ink.

The state department of health requests physicians of the state to kindly get in birth certificates within ten days of the birth as required by the state law. The penalty provided is as follows:

General Statutes of Connecticut. "Sec. 354. General Penalty. Any person violating any of the provisions of this chapter, for which no specific penalty is provided, shall be fined not less than seven nor more than twenty-five dollars; but this provision shall not be construed as limiting or affecting the provisions of section 6304."

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BERNARR MACFADDEN AGAIN

The members of the profession in Connecticut are again reminded of Bernarr Macfadden's Physical Culture Hotel at Dansville, N. Y., this time by attractive little courtesy cards offering a discount on the regular prices of accommodations at this "non-profit institution." The subject is an old one but the racket is ever new.

Priest in Minnesota Medicine, March 1937, calls attention to the valuable work of Ude and Urner in diagnosing placenta praevia in the last trimester of pregnancy by means of cystograms. The value of this procedure has been debated by many, including Adair, but there seems to be a majority opinion based on experience arising from different parts of the country which lends weight. Priest adds five case reports to show the value of the sodium iodide-roentgenogram technique in diagnosing or excluding the presence of placenta praevia.

There is no doubt that subarachnoid injection of alcohol in suitable amounts and concentrations, administered to suitable patients, gives instant relief of pain. Excessive doses and improper administration will result in motor impairment when this is not desired. The method does not relieve pain when it is of functional origin nor does it relieve pain when it is of central origin. Although pain can be relieved by subarachnoid injections of alcohol, the injections should not be performed without thorough general and neurologic examination, since root pain is one of the early signs of intraspinal tumor. —*A. W. Adson, M.D., Minn. Med., March* 1937.

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Minnesota's law which provides that recipients of Old Age Assistance may receive medical nursing, dental and hospital care in excess of pension allotments appears to be unique among the states of the north and middle west. This provision in Minnesota's law was secured because the Committee on Public Policy and Legislation was alert to the need before the law took shape at the 1936 special session.

The situation in North Dakota where the Resettlement Administration together with state agencies has formed what is known as the North Dakota Mutual Aid Society appears also to be unique. Medical care is provided through this society to all the recipients of aid from the Resettlement Administration. That means, in North Dakota, fully one-half of the population. Physicians are paid for medical care for these clients at a rate of 50 per cent of normal fees. Practically all physicians of the state are cooperating on this basis.— *Minn. Med. March* 1937.

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

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NEWS.— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

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• Editorials •

HOSPITAL PREPAYMENT SERVICE

In January 1937 the Bureau of Medical Economics of the American Medical Association informed the profession that out of 172 group hospitalization and hospital insurance plans questioned, ninety were found active and eighty-two inactive. Of these ninety termed active, thirty-four represented only established proposals. Since then, if we read the signs correctly, the process of experimentation in this field has gained impetus. Some plans are sponsored entirely by non-professional individuals united in a non-profit organization, others present a goodly number of physicians as sponsors. The success or failure of these plans seems to hinge upon one issue, viz., is a given plan attractive enough to gain the majority support in any community so that competition by both ethical and unethical imitators shall be discouraged, or is it promoted by hospitals unable to give first class service?

Prepayment hospital service has its merits, as we must all recognize, and not the least of these is the provision afforded many patients for their hospital expenses when they might otherwise be objects of charity and a burden on the hospital resources. Defects in the plans seem to be almost endless. Probably few realize that by the establishment of such plans the control of county medical associations over medical practice is diminished and the influence of lay commercial interests increased. Many patients are going to be greatly disillusioned when they find that the physician's services are an additional expense. From such beginnings we may expect to find established institutions, customs and vested interests with influences reaching far beyond the immediate intentions of the founders. These plans may serve as entering wedges for lay organizations to control more extensively hospital management unless care is taken to provide for a majority of the directors to be chosen from among directors or trustees of hospital and medical societies.

Examination of the various pre-payment hospital plans reveals a similarity throughout. Some include no medical services except those supplied by internes and residents; others include certain services such as X-ray and laboratory and exclude other specialties; a small number include practically all services afforded by a hospital except that of the physician or surgeon in attendance. The Bureau of Medical Economics of the American Medical Association reminds us that the inclusion even of routine medicines, routine laboratory services and anaesthesia increases the salability of the contracts but raises the question of hospitals providing medical services.

The House of Delegates in Special Session on February 10 was asked to approve a certain plan as proposed by a lay non-profit organization. Should the services of roentgenologists, pathologists, cardiologists, etc., be included in the service rendered by the hospital under the plan or should the service be restricted to that of internes and residents? No one knew just what were the wishes of the roentgenologist in Windham County, or the pathologist in Litchfield County, or the physiotherapeutist in New London County. No one had canvassed the membership with this question in mind.

We have continuously been advised to proceed with caution in all new enterprises, but let us not make caution an excuse for our ignorance of the subject. Let it not be said of our State Medical Society that we are not awake to the issues of the day which vitally affect us. Social reform and social legislation are definite realities. It is not too early to attempt to formulate a definite course of action, particularly when the problem of hospital pre-payment service is closely related to each one of us in the individual practice of medicine.

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ALLERGY IN GYNECOLOGY

The contribution of Goodall and Power of Montreal in the field of allergy merits our critical consideration. Little if anything has been known of the effect of allergic reactions upon the generative organs. We are reminded of the prophecy of Sir William Osler, expressed over twenty years ago, that "some day some anaphylactic key will unlock the door to this dark chamber", containing in the mind of that eminent clinician that group of diseases known as purpura, asthma, edema of the glottis, and hay fever. The recent work of Goodall and Power brings the realization of this prophecy yet nearer. These workers have demonstrated a definite syndrome, a diffuse edema of all the pelvic organs, a thickening of the peritoneum, and free fluid in the pelvic cavity. Concomitant with these findings they report a low basal metabolism, and an achlorhydria before and after test meals.

Investigation has served to ascribe to allergic factors cases of chronic memorrhagia and metrorrhagia, cases of dysmenorrhea, cases of leukorrhea, sometimes associated with mucous colitis, at other times with vaginitis and intertriginous vulvitis. Diabetic vulvitis and vaginitis are reported to be found to result from a vulvar allergy in which the allergen is glucose and not the result of local decomposition of the glucose in the urine as commonly believed.

Whether we accept these hypotheses, already supported by Bell of London and Schumacker of Boston, or with Novak and Gay of Baltimore refute them as based on inadequate evidence, we are impressed by the possibilities suggested in this field of research and welcome additions to our knowledge of allergy in any part of the human organism.

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THE CAMPAIGN AGAINST SYPHILIS

Following a mandate issued by the Surgeon General of the United States Public Health Service, the State Medical Societies throughout the country have entered upon an intensive campaign to eradicate syphilis. In cooperation with this campaign the majority of the Journals of the State Societies have devoted considerable space to this subject. Two journals assigned an entire issue to it, including articles on the various aspects of the diagnosis and treatment, as well as editorials which contributed further emphasis.

We cannot fail to realize the importance of the issue and the necessity for our full cooperation as a profession when we remind ourselves of the statistical facts:

In 1934 syphilis disabled nearly five times as many persons as did the automobile; that syphilis is responsible for more than 10% of all

insanity, 18% of all diseases of the heart and blood vessels, and for many of the still births and infant deaths in the first week of life.

The cost of treatment in an attempt to eradicate the disease is not a major difficulty. Figures show that five cases of syphilis can be treated at the same cost as one case of tuberculosis. Were we to accomplish our goal in so far that syphilis became an uncommon disease, as is now true in Sweden, the ultimate cost could not possibly equal that of caring for the many victims now dependent upon society.

The present campaign is not the first of its kind. Soon after the end of the World War a similar drive was launched with the backing of Congress in the way of the appropriation of large sums of money. Apparently the time was not ripe, public support and interest was withheld because of the lack of real knowledge of the facts. The public was afraid of an attempt at moral reform as the underlying factor.

Two powerful allies today are the press and the radio. Where formerly the word syphilis was but little used and taboo on a broadcast, in the face of a wider spread knowledge of the dangers of syphilis as a communicable disease, these avenues have been opened. Additional means of arousing public consciousness are by posters, exhibits, lectures, pamphlets, and, with discretion and intelligence, that most powerful weapon, the movies. As the result the public would become aware of the dangers of this health menace, just as it has already been widely informed of the dangers of tuberculosis, and is being educated in the present day to realize the importance of heeding early the symptoms of cancer.

In Connecticut the State Medical Society has impowered its Committee on Public Health to assume the responsibility of the state's part in the campaign. Sub-committees from the various County Associations will cooperate with the State Committee. Programs of County Associations are presenting the subject of syphilis to the members.

We have every reason to believe that this drive will not fail. The time seemingly is propitious, detailed plans are being carefully formulated, the importance of the problem is unquestionable, altogether it is a matter which challenges the cooperation and interest of the entire profession.

REPORT APPEARS FROM AMERICAN FOUNDATION STUDIES IN GOVERNMENT

Ever since the publication of the studies of the Committee on the Costs of Medical Care there has been a more or less inarticulate desire on the part of the ordinary doctor to know more about the fundamental changes in practice which have taken place in Europe and which threaten in this country. Coupled with this desire has been a sense of hopelessness on the part of busy practitioners that no way could be found adequately to appraise the real desires of the medical profession. Many physicians felt strangely remote from the parent American Medical Association organization, and perhaps did not appreciate how impossible it is for the National organization to speak authoritatively in favor of, or opposed to, plans for the nation which might be adopted experimentally in various localities.

The American Foundation Studies in Government, whose publication "American Medicine" recently appeared, has filled this want. This two-volume work presents with peculiar ingenuity and honesty a broad picture of what the doctors think about all of these matters. Here in two volumes, well indexed, one can with relative ease ascertain the views of thoughtful medical men on various aspects of social medical problems. These views often differ but their presentation, where the differences are great, serves to emphasize the complexity of the problem involved and the difficulty of its solution, and where opinions concur predominantly, one gains a clearer idea of desirable changes. A review of this publication will be found on another page of this issue of the JOURNAL.

At the present writing no one seems to know if, or when, the Federal Social Security Bill, covering sickness insurance, will be presented to Congress. It is known that a carefully prepared, and of its kind a very excellent bill, has been on the President's desk since January, 1936. It is opportune that the American Foundation's study is presented at this time in advance of the consideration of any such legislation, for here is a body of "testimony out of court", gathered from all parts of the country and from all kinds of physicians, presented without their signatures, and therefore with a frankness which would be lacking were the writers to be confined to sworn

court testimony. These are statements therefore of what the doctors actually think about the problems and for this reason these two volumes will be of inestimable value as a background of information necessary for any intelligent planning in the field of the medical services.

While the statements quoted are not signed by name, they are ear-marked as coming from a certain section of the country or from a physician of a specified type of practice. About twenty-one hundred physicians contributed their opinions and, as would be expected, Connecticut has furnished her share, totaling forty-three.*

The Medical Advisory Committee which endorsed this report as a fair summary of the views of their colleagues that replied to the inquiry, the integrity of the work, and the usefulness of making these opinions valuable to the public numbered one hundred and thirty-four. From Connecticut Doctors Blumer, Miller, Peters and Winternitz are among the Medical Advisory Committee.

J. R. Miller, M.D.

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ATTENTION GRUMBLERS!

Rumors and Rumblings have it that some few members of our State Medical Society consider the dues exorbitant, and unreasonable. These same grumblers pay from $75.00 to $150.00 for golf, $50.00 to $100.00 for membership in a luncheon club (and the lunches are extra), from $200.00 to $400.00 a year for lodge dues, church contributions, fishing or for the skeet club. In the West the average dues of medical societies are $25.00, but do run as high as $50.00 a year. In Connecticut, excepting the specialist who belongs to many exclusive organizations, the tax is much less than $50.00 In view of the large returns in the way of protection for his medical practice the presentation of educational opportunities, and the prestige which he gains by being a member of such an organization, no well-informed person can find any just cause for complaint.

BRIDGEPORT AND THE ANNUAL MEETING

This month the Fairfield County Medical Association is host to the State Medical Society at its Annual Meeting May 19 and 20 held in Bridgeport. On another page of this issue the Bridgeport Chamber of Commerce has briefly outlined the history and attractions of its city. Southern Connecticut is growing more rapidly than New England and more rapidly than Connecticut as a whole — inasmuch as from 1890 to 1930 the population of New England increased 73%; of Connecticut 115%; of the Fairfield and New Haven County area 136%.

The State Society is in turn host to a noteworthy group of visiting speakers, coming to us from as far north as Montreal, and as far south as Richmond. A new Section on Anaesthesia awaits recognition. Problems of vital interest to the practice of medicine are on the agenda of the House of Delegates. You should know what your State Medical Society is doing. Each one of our guest speakers has a message. We look forward to seeing you at Convention Headquarters, Hotel Stratfield.

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DR. BOWERS BECOMES EDITOR EMERITUS OF THE NEW ENGLAND JOURNAL OF MEDICINE

After fifteen years as managing editor of the New England Journal of Medicine, Walter Prentice Bowers has become editor emeritus. It is a promotion worthy of the man who for over sixty years has devoted his life to medicine and to public service. His list of achievements begins in his native town of Clinton and extends outward to include the entire State of Massachusetts. He has received recognition from his alma mater, Harvard University. Readers of the New England Journal have added their individual, though silent praise at their office desks and by their firesides.

One of that loyal group of respected physicians and surgeons, typified also by the late

*A list of the Connecticut contributors is as follows:
NEW HAVEN: C. J. Bartlett, S. Bayne-Jones, E. M. Blake, G. Blumer, H. S. Colwell, H. Cushing, A. B. Dayton, R. S. Dow, H. B. Ferris, S. C. Harvey, G. W. Hawley, J. W. Hirschfeld, E. H. Hume, E. Kahn, C. Kuh, M. Lear, R. McDonnell, J. Paul, J. Peters, R. Shipley, F. Sperry, J. Trask, M. Winternitz. HARTFORD: C. C. Burlingame, T. N. Hepburn, P. McPartland, J. R. Miller, J. H. T. Sweet, Jr., P. P. Swett, S. B. Weld, J. A. Wentworth, R. M. Yergason. GREENWICH: H. L. Amos. WATERBURY: C. H. Brown, E. A. Herr.S HARON: J. S. Chaffee. CROMWELL: F. H. Couch. NORWICH: J. J. Donohue. GUILFORD: R. Ferguson. STAMFORD: R. R. Gandy, S. Q. Root. SOUTHPORT: W. B. Graves. BRIDGEPORT: D. C. Patterson.

James E. Stone of Boston, Dr. Bowers has stood for the best and noblest in medical practice and medical journalism. We add our best wishes to those of many others, already expressed, in coveting for Dr. Bowers a period of relief from active responsibilities, not one of complete removal from his chosen field, but one in which his counsel and advice shall be of inestimable value. To his successor, Dr. Robert N. Nye, we offer congratuations.

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From the Secretary's Office

CREIGHTON BARKER, M.D.
258 Church Street New Haven
Administrative Secretary

Atlantic City

Attention is directed to making reservations for hotel accommodations at Atlantic City during the Convention of the American Medical Association, June 7-11, 1937. Our State Society will have its headquarters at the Ritz-Carlton Hotel, and reservation cards have been distributed to all members of the Society. If that has been mislaid another may be found on page 23 of this issue of the JOURNAL. If you expect to go to Atlantic City and wish accommodations at the Ritz-Carlton with the other members of the State Society will you send in your reservation at once.

Directory

The Directory of physicians in New York, New Jersey, and Connecticut which has been published jointly by the Medical Society of the State of New York, The Medical Society of New Jersey, and The Connecticut State Medical Society is now available for distribution. It includes a complete list of all physicians in Connecticut with the date and place of graduation, address, telephone number, office hours, hospital appointments, etc. Copies of the Directory may be obtained from Mr. Thomas R. Gardiner, 33 West 42nd Street, New York, N. Y.

Committee Meetings

The Committee on Public Policy and Legislation; the Committee on Public Health; the Committee on Medical Expert Testimony; the Committee on Narcotic Drug Addiction have met at the State Office during the past few weeks.

Circulars and contracts from the Underwriters Bureau, Inc., of Kansas City, Mo., have been distributed to Connecticut physicians. Members of The Connecticut State Medical Society are cautioned to inquire carefully into the proposition before entering into any contracts with the Bureau.

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ANNUAL MEETING, MAY 19-20, 1937

Many delegates from State Societies of neighboring States are expected at our Annual Meeting in Bridgeport.

From the Maine Medical Associtaion:
Dr. Merriwell T. Shelton, Augusta, Maine.

From The Massachusetts Medical Society:
Dr. Arthur R. Crandell, Taunton, Mass.
Dr. Erwin C. Miller, Worcester, Mass.

From The New Hampshire Medical Society:
Dr. Louis C. Ager, Rutland, Mass.
Dr. Arthur W. Burnham, Lebanon, New Hampshire.

From the Rhode Island Medical Society:
Dr. Frank B. Cutt, Providence, Rhode Island.
Dr. Ralph L. DiLeone, Providence, Rhode Island.

From the Vermont State Medical Society:
Dr. John Trotter, Bennington, Vermont.

From Connecticut Pharmaceutical Association:
George F. Blackall, Bristol.

From The Connecticut State Dental Association:
Dr. J. J. Myers, Bridgeport, Conn.

Guests of the Society during the Convention will be:

Dr. Peter Irving, Secretary, Medical Society of the State of New York.

Dr. LeRoy A. Wilkes, Executive Secretary, The Medical Society of New Jersey.

Dr. Albert W. Buck, President, The Connecticut Hospital Association.

Ira V. Hiscock, Secretary, The Connecticut Public Health Association.

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DELEGATES FROM THE CONNECTICUT STATE MEDICAL SOCIETY

To the American Medical Association:
Delegates: George Blumer, New Haven;
Walter R. Steiner, Hartford.

Alternates: Robert L. Rowley, Hartford; Samuel C. Harvey.

Meeting to be held June 7-11, 1937, Atlantic City, New Jersey.

To the Maine Medical Association:

Dr. Ralph A. McDonnell, New Haven; Dr. Alfred C. Henderson, Stamford.

Meeting to be held June 20, 21, 22, 1937, Belgrade Hotel, Belgrade Lakes, Maine.

To The Massachusetts Medical Society:

Dr. Philip G. McLellan, Hartford; Dr. Joseph A. LaPalme, Putnam.

Meeting to be held June 1-3, 1937, Boston, Mass.

To The New Hampshire Medical Society:

Dr. Clyde L. Deming, New Haven; Dr. Charles Y. Bidgood, Hartford.

Meeting to be held May 18-19, 1937, Manchester, New Hampshire.

To The Rhode Island Medical Society:

Dr. Creighton Barker, New Haven; Dr. Herbert Thoms, New Haven.

Meeting to be held June 2-3, 1937, Medical Library Building, Providence, Rhode Island.

To The Vermont State Medical Society:

Meeting to be held October 14-15, 1937, St. Johnsbury, Vermont.

To The Connecticut State Dental Association:

Dr. Thacher W. Worthen, Hartford; Dr. Stanley B. Weld, Hartford; Dr. Ralph A. Richardson, Bristol.

Meeting to be held May 12, 13, 14, 1937, Hotel Bond, Hartford, Conn.

To The Connecticut State Hospital Association:

Dr. Harry B. Hanchett, Torrington.

To The Connecticut Pharmaceutical Association:

Dr. Arthur B. Dayton, New Haven.

Meeting to be held June 29-30, 1937, Hotel Griswold, New London, Conn.

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SPECIAL NOTICE

This Office is especially interested in extending its file of the bound volumes of the Proceedings of The Connecticut State Medical Society. It will be deeply appreciated if any members having copies of the Proceedings prior to 1895 will donate them to the Library of the State Office.

THE COMMERCIAL EXHIBIT

Thomas R. Gardiner, Director

33 West 42nd Street, New York City

Space Number	Exhibitor
1	Professional Equipment Company.
2	Barr Laboratories, Inc.
3	Surgeons & Physicians Supply Company.
4	Otis Clapp & Son.
5	Philip Morris & Company Ltd., Inc.
6	The Foregger Company, Inc.
7	
8	Davies, Rose & Company, Ltd.
9	The Arlington Chemical Company.
10	Kny-Scheerer Corporation.
11	E. L. Washburn & Company, Inc.
12	
13	McKesson & Robbins, Inc.
14	Lee DeForest Laboratories.
15	U. S. Process Corporation.
16	Cameron Surgical Specialty Company.
17	
18	C. B. Fleet Company, Inc.
19	
20	American Agency of French Vichy, Inc.
21	
22	
23	Middlewest Instrument Company.
24	
25	Bard-Parker Company, Inc.
26	
27	Holland-Rantos Company, Inc.
28	
29	Morgan Linen Service, Inc.
30	Scientific Sugars Company.
31	Nestle's Milk Products, Inc.
32	H. G. Fischer & Company.
33	Petrolagar Laboratories, Inc.
34	Dictograph Products Company, Inc.
35	American Hospital Supply Corporation.
36 & 37	The D. G. Stoughton Company.
38	E. F. Mahady Company.
39	Professional Equipment Company.
40	Lederle Laboratories, Inc.
41	Mead Johnson & Company.

Scientific Exhibits

Connecticut State Department of Health

Tumor Committee, The Connecticut State Medical Society

BRIDGEPORT

The City of Bridgeport last year celebrated its one hundredth anniversary of its incorporation as a city in June, 1836. This served to focus attention upon the city's phenomenal growth during this one hundred year period for in 1836 the population was less than 3,000 and the 1930 Census credited Bridgeport with a population of 146,716. As late as 1890, the population was less than 50,000, which means that in the last forty years it has, not doubled, but trebled its population.

Nevertheless Bridgeport — which was first known as "Pequonnock" from the Indian settlement here — received its first white settlers in 1639, although what is now within the borders of the city was then and for many years thereafter a part of the towns of Stratford on the east and Fairfield on the west, not becoming a separate township until 1821 although having become a borough of the town of Stratford as early as 1800.

The child of Stratford and Fairfield, Bridgeport has far outstripped its parent towns in growth, and this extraordinary development has been due almost entirely to the great industrial expansion which took place here during the 90's and which formed the basis for the even greater industrial activity which was to follow during the years of the World War. Bridgeport became in 1917-19 one of the principal cities in the country for the manufacture of munitions with a population estimated at 200,000.

Needless to state, Bridgeport's tremendous industrial development is its chief characteristic today and has rightfully earned the city its sobriquet of "The Industrial Capital of Connecticut." There probably is no city in the United States that has a more diversified line of industries. Products bearing the "Made in Bridgeport" stamp find their way to every corner of the earth and advertise the city universally. Among these national advertisers are: Singer Sewing Machine Company, Remington Arms Company, General Electric Company, Columbia Phonograph Company, American Chain Company, Raybestos-Manhattan, Bridgeport Brass Company, Dictaphone Corporation, Remington Rand, Underwood Elliott Fisher Company, Crane Company, Warner Brothers Company, American Fabrics Company, Sikorsky Aviation Corporation.

Of special interest to the medical profession are the manufacturing plants of McKesson & Robbins and the Bay Company.

And yet, Bridgeport also possesses many attractions that few cities — industrial or otherwise — can equal or surpass. The city's location on Long Island Sound furnishes one of its greatest natural attractions. Long Island Sound is fourteen miles wide at this point, and this expanse of blue sea lying at Bridgeport's front door is one of her assets that inland cities may well envy. Due primarily to the generosity and foresight of P. T. Barnum, the Great Showman, much of the waterfront was early acquired by the City. Bridgeport's Seaside Park, with its splendid boulevard skirting the seawall for two and a half miles, is one of the most beautiful parks in the country. Bridgeport, in fact, is often known as "The Park City" and the constant additions to the park system justify the name as over 1,000 acres are now devoted to park and recreational areas.

Bridgeport is the county seat of Fairfield County and is the third city in population in the State of Connecticut.

Bridgeport's many excellent hotels insure adequate and comfortable hotel accommodations for transient or permanent guests, and this has been one factor in attracting an increasing number of conventions to the City. Modern retail stores carrying complete lines of first-class merchandise, as well as up-to-date theatres providing commercial entertainment, also contribute to the success of conventions held here.

—Bridgeport Chamber of Commerce

A. M. A.

Atlantic City

June 7-11

1937

Program

145th Annual Meeting The Connecticut State Medical Society

Hotel Stratfield, Bridgeport, May 19-20, 1937

DANIEL C. PATTERSON, *President*

COMMITTEE ON SCIENTIFIC WORK

Stanley B. Weld, *Chairman* Creighton Barker H. Bertram Lambert

COMMITTEE ON ARRANGEMENTS
FROM FAIRFIELD COUNTY MEDICAL ASSOCIATION

Crawford Griswold, *Chairman*

Cornelius S. Conklin Arthur S. Griswold
Daniel F. Keegan Halford B. Kneale

WEDNESDAY, MAY 19

MORNING

Registration, Hotel Stratfield.

Commercial Exhibit.

10-12:30 Clinics.
Bridgeport Hospital.
St. Vincent's Hospital.

LUNCHEON

Members of the Society attending clinics will be the guests of the hospitals for luncheon.
Women's Medical Society.
Luncheon 12:30, Room A-1, Stratfield Hotel.
Carcinoma Developing in Uterus after Irradiation Menopause, Catherine Macfarlane, Professor Gynecology, Women's Medical College, Philadelphia.

2:00 Reminiscences in the Development of Gynecology. Howard A. Kelly, Professor Emeritus Gynecology, Johns Hopkins University, Baltimore.

2:45 The Diagnosis and Treatment of Primary Malignant Disease of the Tracheobronchial Tree. Porter P. Vinson, Professor of Bronchoscopy, Esophagoscopy and Gastroscopy, Medical College of Virginia, Richmond. Discussion: William F. Verdi, New Haven, James J. Hennessy, Hartford.

3:00 Section Meetings.

Obstetrics and Gynecology, Hartwell G. Thompson, Chairman. General Session, Howard A. Kelly, Guest.

Radiology. R. Harold Lockhart, Chairman. The Value of Roentgenologic Study in the Diagnosis of Heart Disease. George Levene. Director, Department of Roentgenology, Massachusetts Memorial Hospitals, Boston.

Dermatology and Syphilology. Maurice J. Strauss, Chairman. Eruptions Caused by Commonly Used Drugs. Elias W. Abramowitz. Associate Professor of Dermatology and Syphilology, Skin and Cancer Unit, Post-Graduate Hospital, Columbia University.

Conservative Treatment of Syphilis. Allan K, Poole, Associate Clinical Professor of Medicine. Yale University, School of Medicine.

Commercial Exhibit.

7:15 Annual Dinner of the Society.
Daniel C. Patterson, Presiding.
Speaker: James Rowland Angell, President, Yale University.

THURSDAY, MAY 20

MORNING

Registration, Hotel Stratfield.

Commercial Exhibit.

10:00 Symptomatology of Surgical Diseases of the Anus and Rectum. John Homans. Professor of Surgery (Pro. Tem.) Yale University, School of Medicine; Clinical Professor of Surgery, Harvard Medical School. Discussion: Edward Ottenheimer, Willimantic.

10:45 Factors in the Treatment of Asymptomatic Period of Heart Disease. C. Sidney Burwell, Research Professor of Clinical Medicine, and Dean, Harvard Medical School. Discussion: George Blumer, New Haven.

11:30 Studies in Vitamin C Content of Blood in Patients with Dental Abnormalities. David Weisberger. Department of Medicine of the Dental School of Harvard University. Discussion: William J. McLaughlin, D.D.S., Bridgeport. From Connecticut State Dental Association (by invitation).

12:15 The Clinical Picture of Suppurative Lesions of the Petrosal Pyramid. Samuel J. Kopetsky, Professor of Otology, New York Polyclinic Medical School. Discussion: Pinckney W. Snelling, Hartford.

LUNCHEON — AFTERNOON

2:30 Presidential Address.
Daniel C. Patterson. Bridgeport.

3:00 The Recent Revolution in Anesthesia.
Harold R. Griffith, Chief Anesthetist, Homeopathic Hospital, Montreal, P. Q. Discussion: Anthony J. Mendillo, New Haven; James R. Miller, Hartford.

3:45 Chronic Ulcerative Colitis. Richard M Smith, Assistant Professor of Pediatrics and Child Hygiene, Harvard Medical School. Discussion: Howard A. Brayton, Hartford, Grover F. Powers, New Haven.

4:00 Section Meeting.
Eye, Ear, Nose and Throat. Walter L. Hogan, Chairman. Practical Points in Operative Surgery of the Eye. Clyde E. McDannald, Professor of Ophthalmology, New York Polyclinic Medical School. (Program not complete).

4:00 Section Meeting. Dinner to follow.
Section on Neurology and Psychiatry. Otto G. Wiedman, President. The Medical Witness. Hon. Meier Steinbrink, Justice of the Supreme Court, State of New York.
The Paranoic in Court. Foster Kennedy, Clinical Professor of Neurology, Cornell Medical School, New York.

4:00 Special Meeting. Dinner to follow.
Connecticut Medical Examiners' Association.
Henry N. Costello, President.
Toxicology in Medical Legal Autopsy. Professor Alexander O. Gettler, Washington Square College, New York City.

4:00 *Anesthesia.* Leonard F. Del Vecchio, Chairman. Preliminary Report on the Reorganization of the Section on Anesthesia, Hartford Hospital. Ralph M. Tovell, Anesthetist, Hartford Hospital.
Chemical Mediation of Nerve Stimuli. Louis Goodman, Department of Pharmacology, Yale University.
Analysis of Peri-dual Anesthesia as Employed at Grace Hospital. Brian C. Sword, Anesthetist, Grace Hospital, New Haven.

5:00 Special Meeting. Dinner to follow.
The Hezekiah Beardsley Pediatric Club. Howard A. Brayton, President. Bacillary Dysentery in Childhood. Parker Dooley, Assistant Pediatrician, New York Hospital.
Section and Special Meetings Open to All.
Minor changes in the Program may be unavoidable.

Creighton Barker, *Administrative Secretary*

MEETINGS OF THE COUNCIL
May 19 - 20
Hotel Stratfield

James Douglas Gold, *Chairman*

Wednesday, May 19th.—9:30 A.M. Room 343.
Thursday, May 20th.—9:30 A.M. Room 343.
Thursday, May 20th.—At close of Scientific Session.

THE HOUSE OF DELEGATES

Daniel C. Patterson, *President*

Fairfield County	9	New Haven County	15
Hartford County	14	New London County	4
Litchfield County	2	Tolland County	1
Middlesex County	2	Windham County	2

Wednesday, May 19th.—10:15 A.M. Room 316.
Thursday, May 20th.—10:30 A.M. Room 316.

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A Meeting of the Connecticut Fracture Committee was held April 22 in the Hunt Memorial Building, Hartford.

During the business meeting from 10:00 to 12:00 A.M. many important matters were brought up for consideration. The Committee is very much alive and its work progressing actively.

At the clinical meeting from 2:00 to 4:00 P.M. a number of short interesting papers on various phases of fracture treatment were discussed, with considerable profit to those present.

R. M. Yergason, M.D.
Secretary

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ACTIVITIES OF STATE SOCIETY COMMITTEE ON PUBLIC HEALTH

The meeting of the Public Health Committee held on January 21, 1937 at the Office of the State Society in New Haven was devoted to a discussion of methods of procedure in the Venereal Disease Control Program in which the State Society was invited to participate by Surgeon General Parran of the United States Public Health Service.

Dr. Henry P. Talbot, Director of the Bureau of Venereal Diseases of the State Department of Health, presented a suggested program for the

coordination of Venereal Disease Control on a state wide basis as follows:

1. The County Medical Associations be requested to appoint three physicians in private practice to act as a committee;
2. The Committee from a County or Committees from a group of Counties be requested to meet with the express idea of discussing venereal disease problems;
3. All health officers of the County or Counties be requested to attend the meeting;
4. All clinic and treatment station physicians be requested to meet to participate in the discussion of venereal disease problems;
5. The Director of the Bureau of Venereal Diseases request that such committees be appointed by each County Medical Association and arrange for a convenient time and meeting place;
6. The subject or subjects to be discussed include the following:

(a) The medical phase of Venereal Disease Control, including epidemiology.

(b) Laws and regulations, including follow-up of cases.

(c) Educational measures.

A resume of the Venereal Disease Conference held in Washington last December was given by Dr. Talbot under the following headings:

1. Adequate facilities for the treatment of cases as well as adequate laboratory facilities.
2. More liberal distribution of arsenicals for the treatment of cases.
3. The appointment by each State Health Department of a Director of the Bureau of Venereal Diseases.
4. More active interest of the Medical Societies; at least more cooperation between the Medical Societies and the Departments of Public Health in order to formulate a program for the control of the disease.

Dr. Stanley H. Osborn, State Commissioner of Health, stressed the free distribution of drugs to all patients irregardless of their financial status, and the use of dark field illumination for early diagnosis as two major points needed in the state.

The Committee felt, and so voted, that any program should be fostered by County Committees, the Central Committee and the Director of the Bureau of Venereal Disease Control of the State Department of Health acting as coordinating agents. It was also agreed that insofar as is possible Venereal Disease Control should constitute a part of the program at some future meetings of the County Associations. Some Counties have already appointed these committees; others expect to appoint such committees at their spring meetings.

February 3, 1937, designated as Social Hygiene Day, was recognized throughout the state by meetings devoted to Venereal Disease Control. The Waterbury Medical Society, at its meeting held March 11, 1937, devoted the entire program to a discussion of Venereal Disease Control; Dr. Mahoney of the U. S. Public Health Service being the principal speaker. The discussion was opened by Dr. Stanley H. Osborn, State Commissioner of Health; and continued by Dr. Joseph I. Linde, Health Officer of New Haven; and Dr. E. G. Godfrey, Health Officer of Waterbury.

The Venereal Disease Control Committee of the Hartford County Association has held a preliminary meeting.

The meeting of February 25 was held in Commissioner Osborn's Office in Hartford, and pending legislation concerning public health matters was discussed. Dr. Charles W. Comfort, Jr., Legislative Secretary of the State Medical Society, and Professor Ira V. Hiscock, representing the Connecticut Public Health Association, were present at this meeting. A committee of two, consisting of Dr. A. Nowell Creadick and Dr. W. Bradford Walker was appointed to confer with Dr. Comfort, Dr. David R. Lyman, representing the Legislative Committee, and Professor Ira V. Hiscock to consider the various public health phases of the Report of the Reorganization Commission.

Dr. John S. Dye reported progress for the subcommittee on the handling of accident cases.

The Obstetric Committee in conjunction with the State Department of Health completed the refresher course in obstetrics at Willimantic and Putnam. At an early date a refresher course will be given in Litchfield County.

The refresher course in Pediatrics is now being conducted in these two localities.

Joseph I. Linde, *Chairman*,
Committee on Public Health

THE POLICY OF THE NEURO-PSYCHIATRIC INSTITUTE OF THE HARTFORD RETREAT WITH REGARD TO PATIENT'S SUFFERING FROM ALCOHOLISM

Every physician of experience knows that not every patient with alcoholism presents a neuropsychiatric problem. Many patients with *acute alcoholism* are problems to their families and friends and need temporary care; they are often noisy, uncooperative and destructive and their alcoholism is frequently not based on a correctable psychic disturbance. The Directors of the Neuro-Psychiatric Institute feel that such patients are not entitled to use the facilities of the Neuro-Psychiatric Institute merely to regain sobriety or to make a temporary recovery, and in this viewpoint the Medical Advisory Board concurs.

In some instances acute alcoholism is merely a phase in the course of chronic addiction and in such patients there is commonly an underlying neuro-psychiatric problem. It is clear that such patients are entitled to the benefits of institutional treatment, but it is obvious that in order to obtain satisfactory results the patient must submit to appropriate treatment for a period which, in the judgment of the officers of the institution, is long enough to offer some chance of obtaining such results. In the opinion of this Board, this period will require at least a number of months. Institutional care can benefit the patient but little unless it is adequate and the removal of a patient before it has been possible to produce lasting effects results in waste of money on the part of the patient and the institution, and waste of effort on the part of the physicians and institution caring for him. Such failures make it far more difficult to obtain a final and complete recovery, and it is an injustice to the patient as well.

Patients with chronic alcoholism may reach an institution in one of two ways, (1) they may be committed by a Judge of Probate on the request of responsible relatives or friends after examination and certification by two legally registered physicians or, (2) they may commit themselves voluntarily. In the former instance it is necessary, in order to avoid miscarriage of the purpose for which the patient is committed, that Probate Court Judges should understand the medical principles involved and should avoid commitment for too brief a period. For those who wish to come to the Institute voluntarily, the Institute feels that it must be assured by the patient, a responsible member of the family, and the referring physician that this patient fully intends and all parties to this relationship fully intend to have the patient remain at the Institute for a period of months which is necessary if the patient is to get some real help of a permanent nature. At the present time there is apparently no law and no agreement which such a voluntary patient can sign which will voluntarily bind the patient to take treatment although such a statute has been submitted now to the present legislature. This proposed law will enable a man to bind himself to take treatment over a period of months. The Neuro-Psychiatric Institute is unwilling to accept self-committed patients except with the approval of the family and the committing physician.

We may summarize the policy of the Institution briefly by stating that it is unwilling to accept sufferers from acute alcoholism unless this is an incident in chronic addiction or some other psychiatric state, and only then upon an order from a Judge of Probate, or on a voluntary commitment when it is with the full understanding and cooperation of the patient, the family and referring physician.

BOARD OF MEDICAL VISITORS,

The Neuro-Psychiatric Institute of the Hartford Retreat:

George Blumer, M.D., New Haven,
D. Chester Brown, M.D., Danbury
B. Austin Cheney, M.D., New Haven
James D. Gold, M.D., Bridgeport,
Frederick G. Graves, M.D., Waterbury
Elias Pratt, M.D., Torrington,
E. K. Root, M.D., Hartford,
Nathaniel Selleck, M.D., Danbury,
Walter R. Steiner, M.D., Hartford,
Daniel Sullivan, M.D., New London,
Stella H. Netherwood, *Secretary*.

Current Comments

THE FLOOD IN KENTUCKY

Credit for health protection without parallel anywhere under similar conditions is due chiefly to the promptness with which the organized health forces were mobilized and the effectiveness with which they functioned. Fortunately, Kentucky had, when the flood began to break, seventy-nine full-time county health units in different sections of the Commonwealth. The entire personnel of all of these were immediately transferred to the flood area. The United States Public Health Service rushed in its top-notch men, both physicians and sanitary experts, together with biological and other necessary supplies. The mobile hospital of the U. S. Army, at Carlisle, Pennsylvania, with a capacity of three hundred and twenty beds and one of the best equipped of its kind in the country, was brought to Louisville for emergency service. The Red Cross moved in promptly to furnish nurses, relief workers and medical supplies. The health departments of practically all the States east of the Mississippi made material contributions by furnishing trained health workers or serums and vaccines, one or both. New York sent four of its leading sanitarians and many other municipalities in the East, Midwest and South assisted by sending hospital units, policemen, firemen, or trained personnel of some such character.

Particularly noteworthy were the unselfish services rendered by the medical profession of Kentucky to stricken people throughout this catastrophe. No finer contribution has ever been made in any emergency and no more conclusive evidence has ever been given of the spirit in which this profession has accepted and consistently discharged the responsibility placed upon it by law for public health in the State. It is no exaggeration to say that no people anywhere ever had a greater measure of health protection at any time than did the people of the flooded area during this emergency.

—*Ky. Bull. Dept. Health, Feb.*, 1937

GLIMPSES OF THE FLOOD FROM INDIANA

From Westbrook Pegler:

Evansville and the neighboring country are a'most smothered in kindness and loving care. Doctors lurk in every doorway with loaded needles, ready to skewer one and all with units of bug-juice against most of the ills that flesh is heir to. It is a fine opportunity to have a baby or an appendicitis operation free, and honest bally-hoo against plagues which used to follow flood probably will have the effect of preventing those plagues. The heroic medicos have done themselves out of many an honest dollar in their priestly zeal to serve.

From the Executive Secretary, Indiana State Medical Association:

It is a far cry from the dignified days of the old-time physician in top hat and long coat to the doctor of the flood era answering an emergency call in a craft cannily operated along the river banks, clad in hip boots and clothes he hadn't had time to get out of for days. Often a legion cap to signify his former service standing replaces the ordinary civilian hat.

If one thinks the days of rugged individualism are dead, he should meet the one doctor in the town (Leavenworth), carrying his saddlebags. To our question as to what he needed, he replied: "Young man, what we need most is a good lettin' alone". While attending to a patient, he suddenly looked up and said: "I think my house is drifting away". He went quietly on with his work, and when he finished, took a swing around the town in a boat to verify things.

Many of the homes and offices of the New Albany doctors are under water, but it is Jeffersonville that makes one heartsick. Between Jeffersonville and New Albany, the only bit of ground out of water for that whole trip is the fringe of land around the hydro-electric plant and

an island is all that is visible of Clarksville, where George Rogers Clark established the first all-American settlement in Indiana back around 1780.

At Aurora and Lawrenceburg, a few days after the crest of the flood, we saw doctors trying to dig their offices and homes out of the mud.

Along the river, the highest title that can be bestowed on anyone is not general or admiral or colonel, but "river rat", one who knows the channels and the hidden currents, and how to compete safely day and night with Old Man River. Some day some genius will write an undying flood yarn of high water and high adventure entitled, "The River Rat and the Doctor".

The Council of the Medical Society of Virginia recently adopted resolutions opposing the transfer of the U. S. Public Health Service from the U. S. Treasury Department to a sub-division of the proposed U. S. Department of Social Welfare. The Council, on the other hand, urges in the event of any reorganization affecting the U. S. Public Health Service, that a Federal Department of Public Health be created to include all Federal health activities except those concerned with the military establishments. The Editor of the Virginia Medical Monthly calls attention to the extensive and colossal activities of the U. S. Public Health Service and reminds his readers that "important as the Public Health Service has been in the past, under the New Deal and the increasing social consciousness of the American people it is destined to play a part many times more important".

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NEW LABORATORY FOR TROPICAL DISEASES

Bellevue Hospital has opened a new laboratory for sub-tropical and tropical diseases, according to the New York State Journal of Medicine. After a three-year study it has been found that the foreign population of New York City harbor various sub-tropical and tropical diseases, parasitic infestations in particular. They often remain undiagnosed because of lack of proper laboratory facilities. Many of the conditions are curable. The laboratory will be the immediate charge of Dr. Harry Most of the New York University Medical College and Dr. Amanda Hoff of Columbia University, both graduates of the London School of Tropical Medicine.

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HISTOLOGICAL GRADING OF RECTAL CANCER

Dr. Cuthbert Dukes, Pathologist of St. Mark's Hospital, London, in the February, 1937 Proceedings of the Royal Society of Medicine, makes an appeal for the histological grading of cancer of the rectum according to Broders' method. Such expressions as "highly malignant" or "relatively benign" may imply a different meaning to different individuals. If Broders' method of classification is used the writer believes that the after-history will show a distinct difference in the survival rate according to the grade. This difference in prognosis is chiefly due to the fact that the more anaplastic tumors are likely to have spread further than the better differentiated growths at the time when they receive surgical treatment.

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SOCIAL SECURITY FOR THE CHILD

West Virginia organized 10 county child-welfare units in November to provide demonstration services. These are doing such effective work that the public-assistance councils (public-welfare boards) in two of the counties have already offered to take over part of the salary and travel expenses of the workers in their counties.

In Nevada . . . development of the child-welfare program has been rapid. By December 1936 the number of cases referred to the child-welfare service was 195, many being families with two to eight children each.

The Florida plan for child-welfare services came into full operation in November with the opening of a demonstration unit in Hamilton County and training units at Tampa and Daytona Beach.

In Georgia the plan is to have the State divided into 9 districts following the lines of Congressional districts. Each district will have at least 3 counties organized to provide demonstration of good child-welfare services. . . . By January 1 three of the district units had been formed with a supervisor in charge of each.—*The Child, January* 1937.

ETHICS AND PRESS RELATIONS

Phil Porter, refreshing and usually well-informed columnist for the Cleveland Plain Dealer, in his "The Inside of the News in Cleveland" on January 17, shot a few darts at the medical profession for its alleged childishness on the question of professional ethics.

Wrote Mr. Porter:

"Cleveland doctors act like a lot of jealous children at times in their relations with each other and the newspapers. Some of the most unusual and far-reaching work in the country is turned out here, but it rarely is published until some formal meeting of a medical association when papers are read months later. Officers of the local medical academy are usually timid about breaking this tradition, although they have relaxed a bit in the last couple of years and are coming to realize the benefit of better press relations. But even now it is a great rarity when a newspaper can persuade a leading authority in one or another field (we have about as many of them here as anywhere) to comment for publication.

"It even happens that some individual physicians, rather officious and without authority, try to prevent reporters who cover medical conventions meeting here from reporting legitimate accomplishments of local doctors. One such instance happened at the orthopedic convention last week. A reporter learned about the work of listening to fractures which had developed as a result of a doctor's friendship with a layman who set up mechanical and electrical equipment in his basement as a hobby.

"Other local doctors objected to the perfectly proper report of such a development and the reporter finally had to go to the secretary of the local academy and the convention press officer and get their O. K. before he was certain that no complications would result."

Like most newspaper men, even the well-informed, Mr. Porter apparently fails to understand the reasons for and logic behind the code of professional ethics governing members of the medical profession. He seemingly does not realize that the medical profession, like all other groups, has its quacks, greedy members and self-promoters and that the code of ethics which the medical profession has imposed upon itself has done more to keep fraud, deceit and abuse from overwhelming the sick than any other law, rule or regulation, written or unwritten, all arguments to the contrary notwithstanding.

Nevertheless, to give the devil his dues, we believe that Mr. Porter has pointed out quite appropriately one glaring weakness of the medical profession. That is: The failure of the profession as a whole and physicians individually, in many instances, to fully realize the importance of better press relations.

How to win, rather than lose, the good will and confidence of representatives of the press, is a subject which needs discussion by medical societies.

There need not be a conflict between the code of professional ethics and friendly press relations provided a reasonable attitude can be taken by both sides and a mutual understanding arrived at with respect to the respective problems of the newspaper reporter and the practicing physician.

Abolition of the code of ethics adhered to by the medical profession for centuries will not solve the problem.—*Ohio State Med. Jour. February* 1937.

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ATTENDING STAFFS OF PUBLIC HOSPITALS TO BE COMPENSATED BY PAY PATIENTS

There is a sharp line of demarcation here between public hospitals supported by the local governing bodies and private (pay) institutions (maisons de sante). There are comparatively few public institutions in France in which patients who are unable to pay are housed in separate portions of the same buildings from those who can do so. This is especially true of smaller communities; hence the paying and the free patients are treated in the same wards. The injustice of asking the medical staffs of such mixed free and pay institutions to treat the pay patients without any remuneration has been the source of many complaints by the organized profession. A recent decree (Feb. 21, 1936) of the government states that the physicians and surgeons of public hospitals have the right to receive special remuneration for services rendered to pay patients. However, such fees shall be collected by the hospital and then divided among the members of the staff in a manner to be agreed on between the hospital administrator and the staff.

—*Jour. A. M. A., Jan.* 23, 1937

FIVE AND TEN

The comprehensive disbursement of Federal, State, and Municipal Funds for the maintenance of non-liquidating or non-productive projects has occasioned considerable adverse criticism. In the proposed plans for "health insurance" under government administration there is an estimated 5 per cent lien on the payrolls of the country for the medical service and an additional 5 per cent for administrative costs, making a total of 10 per cent. In defense of this load upon the books of the workers it is contended that employment is thus provided for a group of employable unemployed and the benefits of social security more widely disseminated. Thus the vision of the more abundant life becomes a reality and utopia attained.

Leaving out of consideration for the time being the appalling weakness of the compulsory health insurance project in the matter of low grade medical service to the participants, and debating the subject from the dollar angle, we note other confusing features. While workers may be graded according to earning capacity and a percentage figure determined for purposes of taxation, no percentage or average may be fixed for the consideration of sickness liability. It is this feature that has deterred old line companies from underwriting voluntary health insurance except at exorbitant premium rates over a very limited period. Only mutual companies by reason of their legal privilege of assessments in the event of peak loads have been able to take over this type of business. It is inconceivable that retrenchment of administrative costs would be advised for the building up of a reserve. It is more likely that the 5 to 5 relation of the medical service would be reduced to 7 to 3, the medical service bearing the small end. A reversal of the relation, however, with the medical service on the long end, might put the whole plan on a very acceptable basis — who knows?

It does seem to put a terrible load upon labor already insufficiently paid, to take any percentage from the pay envelope for the support of a group that contributes nothing tangible or even supplemental to the necessities of the laboring class of people. Take the case of the worker, single or married, earning say forty dollars a week. Under the conventional plan proposed, he will part with $50.00 annually under compulsion for the support of a service which he may not need and in all probability will not like after a few trials, but will have no option to change and no redress for his grievances. The strong arm of the administration will suppress him, but his tax will go on just the same. The employer will have the privilege of contributing 1½ per cent. for such an employee. If he earns from 20 to 40 dollars weekly, the employee pays 2½ per cent., but should he earn but 20 dollars, the employer contributes 3½ per cent. of the wage. The makers of calculating machines must anticipate quite a harvest! Pennsylvania with payrolls of from 2 to 3 billions annually provides a lucrative field for exploitation. Since every taxpayer is involved, every taxpayer should look into every phase of this rather than accept the applesauce concerning "adequate medical care for all people."

A forensic angle comes to mind in discussing this subject. Nearly every high state court has decided against the corporate practice of medicine. Only duly licensed and registered physicians may exercise the right to practice medicine, except in those states where they have no provision for the regulation of the practice of medicine. Can states, therefore, arrogate to themselves the privilege of corporate practice, which privilege they deny to groups of their own lay citizens? This is an interesting situation, but will doubtless occasion no concern to those intent upon this one objective.

It is difficult for the medical profession to subscribe to the plan embraced by Compulsory Health Insurance as a panacea for the medical ills of the low income groups in this country. There are many things that contribute to the physical and physiological welfare of the individuals in this group besides pills, powders, operations, etc. The continuously changing personnel of this group due to variations in their financial status, throws a monkey-wrench into the machinery and upsets comparisons with European experiences, which are sufficiently discouraging as they now stand. All of us are disposed to grant that the wages of this group are insufficient. It is difficult to reconcile the levying of additional taxes on these wages with adequate relief of social, economic, and medical relief even though a cooperative purchasing scheme is established for these relief measures, and more especially where half of the funds so collected are

diverted to a non-producing group. This doesn't make sense.

The character of the medical care dispensed under such a plan as embodied in the Compulsory Health Insurance Scheme, has provided the essence of the arguments advanced by the medical profession against the proposal. It is scarcely to be expected that a public which drugs itself to death through the inspiration of radio ballyhoo and thereby fills the coffers of the proprietary manufacturers would give much heed to such arguments even though in its interest. It is not unlikely that its aberrant psychology leads it to believe that the radio therapeutics are basic and adequate, and compulsory health insurance will enable it to obtain the same at a less expensive total cost. Who knows.

In the event that any part of that public is disposed to listen, facts can be presented that will show that the cases of illness of record have not only increased in number but the disability days have also increased in number in the countries functioning under compulsory health insurance. The morbidity of preventable and controllable diseases has likewise increased. Mortality has also increased. One might imagine that quakery would be decreased, but such is not the case; it has increased. Also the drones in the medical profession, who might have been eliminated by the mild competition previously in existence, have continued to prosper in the routine positions provided for them.

The mild suggestion that the funds collected for Compulsory Health Insurance, if placed 100 per cent in the hands of the medical profession is not so wild as it might at first appear. In some counties such a scheme functions successfully for the indigent, and could be expanded to include the low income groups. The profession must refute the statement that it has no plan.

—*Weekly Roster and Med. Digest, Phila., Pa., Jan.* 9, 1937

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NIGHT OPERATIONS

Modern Hospital calls our attention to the danger of night surgery. The emergency does not always actually exist as revealed by the pathologist's report. The operator and his assisting staff are fatigued and as a result thorough study of the patient is forgone and faulty judgment is exercised. Assistants often do the work alone. Errors of diagnosis, disaster from infection and hemorrhage may ensue.

BIRTH RATE JUMP WORRIES RUSSIANS

The Bolsheviki now admit and seriously criticize grave fundamental defects in the elaborate plans of 1936 to double the population within twenty-five years.

As the first step toward putting the Soviet Union squarely into the population race with Germany and Italy, the Kremlin last Summer issued the famous "big family decree" which strengthened family ties, penalized divorce, forbade abortion (with exceptions) and established bounties for parents of big families.

Simultaneously the governmental public health organizations were supposed to launch a huge building and training program in order to provide hospitalization, doctors and nurses for the expected increases in population.

Now the birth rate is rising in all urban centers, but the health organizations have failed almost completely in the program to provide beds, doctors and nurses for child-bearing mothers.

"We must acknowledge," G. N. Kaminsky, Peoples Commissar of Health said, "that we are poorly prepared for the great increase in the birth rate with which we are already faced as a result of the government decree forbidding abortions. We must make up for time lost and rectify the position by all measures and by an enormous effort."

Way Behind on Bed Program

He was addressing the first scientific session of the Institute for the Protection of Mother and Child called to cope with the birthrate problem. More precise information on the dilemma was provided by the newspaper Izvestia, which pointed out that the program called for 5,512 new beds in lying-in hospitals to be finished during 1936, whereas actually only 561 were provided.

The government did not stop with simple passage of the no-abortion decree. It provided drastic penalties for its enforcement. Hundreds of midwives have been sentenced to long terms for illegal operations. Eighteen women got terms of from one to ten years in prison in a single case recently in Kharkof. Bootleg operations continue but at prices far beyond the reach of the common people. The bounites and decline in cost of living, promised at the time of the passage of the decree, have not wholly materialized.

Instead of declining, the cost of living ad-

vanced about 10 per cent in the Soviet Union in 1936 according to statistics gathered by unbiased observers. Two thousand rubles a year for each child over six in the family was promised at the time of the decree and indeed was paid for some time. Some families drew handsome bounties.

The financial drain on the State was heavy, and early in 1937 the bounties were reduced by executive decree so that parents are not paid bounties on each child until it is 5 years old as was originally provided.

No publicity was attached to the bounty reduction and many families are not yet aware their child-bearing rewards will be greatly reduced.

It was recently announced that officials estimate Moscow's birth rate will be treble that of 1936. In Stalingrad one clinic reported that doctors in November, 1934, were caring for 824 women awaiting babies as compared with seventy-eight the previous November. A fourfold increase of expectant mothers was reported from Baku.

Izvestia pointed out that in many cases hospitals and rest homes supposed to have been finished in 1936 had not even been begun yet.

—*N. Y. Times, March* 7, 1937

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MATERNAL AND INFANT MORTALITY

The maternal morality rate of the United States, one of the highest among the countries of the world for which information is available, appears to have declined slightly on the basis of preliminary figures for the groups of States mentioned. For the 24 States the rate was 55 per 10,000 live births in 1934 and 53 in 1935. The rate for the first quarter of each year for the 20 States was 60 in 1934, 61 in 1935, and 58 in 1936.

Connecticut in 1935 had the third lowest rate in the United States, 43 per 10,000 live births.

Infant mortality, which showed a significant rise in the United States from 58 per 1,000 live births in 1933 to 60 in 1934, shows an encouraging decline on the basis of preliminary figures for 1935. For an area of 24 States the United States Public Health Service reports a rate of 52 in 1935 as compared with 58 for 1934. Preliminary figures for 20 States for the first quarter of 1936 show a drop of 6 points as compared with the rates for that quarter in 1935 and 1934.—*The Child, February* 1937.

BETTER SERVICE WILL DEFEAT STATE MEDICINE

If we are to keep away from state medicine, says the *Mississippi Doctor* (14:32, Nov. 1936), the people must think that they can get better service for less money from an independent profession. We feel sure it is true, but our clientele may not think so. Doctors need to be practicing preventive medicine more than they are and getting paid for it. The profession might do well to do a little more educational work. To help to do this, to give them much better service for the same or just a little more money, every general practitioner would do well to employ a registered nurse to help him, every clinic and every hospital a hostess. Get the office clean, invest in equipment, stock a little library for the benefit of your patients while they wait. Take case histories, examine every patient, study the patient in relation to her environment, carry a nurse on your obstetric calls, send your nurse on one hour nursing calls. Teach the people the value of your service and teach them to pay for it. But make it so good and so pleasant that they will not want any change. It can be done. It is not time to sit down and wait for state medicine, it is time to get up and get away from it, so far ahead that it cannot catch up.

—*Jour. A. M. A., Feb.* 27, 1937

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NURSE ANAESTHETISTS

The Indiana State Board of Medical Registration and Examination recently ruled that anaesthetics should be administered only by physicians. Although there has been considerable discussion on both sides of the question by members of the profession in that state, most of the hospitals have made the necessary provisions to comply therewith. In New York the Council of the State Medical Society, after an investigation, has recommended that similar legislative action be postponed for one year because of the request of New York members of two national societies of anaesthetists. It is the opinion of these members that at present there is an insufficient number of medical anaesthetists within the state to do the work of the nurse anaesthetists thus employed. New York surgeons are not all of the same opinion regarding the benefits of such a move.

EARLY ARISING FROM BED AFTER OPERATIONS

The question of the best time for a patient to quit his bed in the post-operative period has been to the fore. In 1935 Paschoud of Lausanne in particular established a definite "earliest time." Professor Florcken, surgeon, of Frankfort, has meanwhile undertaken large scale observations of the same subject. Excepting in special cases of infection, of heart disease or of exophthalmic goiter, Florcken had all his patients who had undergone operations out of their beds on the day of the intervention or, at most from one to two days afterward. The patients were permitted to sit in easy chairs or to go about in the room. If increased temperatures unrelated to bronchitis were exhibited, the getting up was for the time being postponed. A principal presupposition for early quitting of bed is that the operation shall have run a smooth course. A protective dressing of elastic material should be applied after abdominal and hernial operations and a plaster-of-paris dressing, according to the Bohler method, following intervention in the soft parts. These appliances must be placed in such a way that they do not inhibit ambulation.

The results of 219 abdominal and hernial operations performed on patients above the age of 30 (under diverse types of anesthesia and narcosis) were as follows: Of five fatal cases advanced carcinoma was present in four; of three patients who died of embolism, two presented inoperable carcinoma. One patient died of pulmonary embolism sixteen days after an operation for severe appendicitis with peritonitis. Indeed, this patient presented particularly complicated pathogenic conditions and had already previously been afflictcd with an embolus. Cancer patients, especially if bedfast prior to the operation, were not permitted to leave their beds very early thereafter. The rest of the patients recovered completely without complications; post-operative pneumonia was not observed in a single instance.

Early postoperative arising offers, according to Florcken's investigations, a whole series of benefits. The procedure dispels the feeling of illness in a remarkably short time, the functions of the bladder and of the intestine that otherwise frequently require artificial assistance are for the most part spontaneously reestablished. At the same time the hospital staff is spared additional burdens. Especially remarkable was the rapid recovery and uneventful convalescence of three patients who had undergone operations for severe scar hernias. Early postoperative arising means earlier discharge from the hospital and subsequent resumption of normal activity.

—*Jour A.M.A., Oct.* 17, 1936

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EYE DISEASE AND OPTOMETRY

The claim advanced by some of the men engaged in the measurement and correction of the optical errors of the eye under the classification of optometrists, that optometry embraces the treatment of disease of the eye, is an indication that, sooner or later, they will support legislation that will give them the legal right. This they will readily obtain, unless those members of the ophthalmological branch of the medical profession divest themselves of their complacent attitude in this regard. The studying of books and reading of papers have their place, but a united front is necessary to protect ophthalmology, and *all* opthalmologists should take heed of the danger that confronts not only them but the public.

—*Weekly Roster and Med. Digest, Phila., Pa., Jan.* 16, 1937.

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OHIO RELIEF BILL

A "stop-gap" poor relief bill appropriating $3,000,000 for Ohio counties for poor relief expenditures during the period January 1 to April 15, and $1,000,000 for flood relief in the counties affected by the recent flood disaster, was enacted by the Ohio General Assembly, February 10.

The $3,000,000 provided for poor relief is to be distributed among the counties on the basis of their respective needs, at the discretion of the State Relief Commission.

Counties, in order to obtain the funds, will not be required to match them with any of their own, that provision having been stricken out of the original bill in the House.

Local administration and disbursement of the funds received from the State Relief Commission remains in the hands of the county commissioners, but they may re-allocate such funds on a percentage basis to various political subdivisions within the county for relief purposes.

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COVERS PHYSICIANS' SERVICES

As in the last poor relief act, H. B. 663, enacted July 20, 1936, direct relief is defined as

"the provisions of foods, clothing, fuel, shelter, *physicians' services wherever rendered* and other necessary commodities and services in the home of the individual aided or, in the case of a homeless person, in a lodging house or other suitable quarters".

To obtain the needed revenue without new state legislation a bill has been introduced into the House empowering the county commissioners to levy, among other taxes, a 3 per cent gross receipts tax on professional services.—*Ohio State Med. Jour., March* 1937.

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CHANGES IN REGULATIONS CONCERNING MEDICAL PROCEDURE IN WORKMEN'S COMPENSATION CLAIMS IN OHIO

Because approximately 10 per cent of the X-ray films received by the Ohio State Industrial Commission each year are of no diagnostic value the Commission has announced certain regulations which must be carried out before payment is made. These regulations call for an original film or a satisfactory reproduction of certain size and composition, mailed to prevent damage, properly labelled, and delivered with the interpretation to the Industrial Commission.

The Commission has also announced that in cases involving a partial loss of vision payment will be made for the full percentage of vision lost without correction, and, therefore, payment for purchase of glasses to correct such vision will not be made. The Commission will not pay for replacement of glasses broken as a result of an injury. The only glasses for which it will pay are those where, in the opinion of the Medical Section of the Commission, such are necessary for treatment of a temporary eye condition resulting from an injury.—*Ohio State Med. Jour., March* 1937.

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Ferrous sulphate is no more efficient than reduced iron and ammonium sulphate, and Blaud's pills, but it is very inexpensive and when administered with the Vitamin B may excite an earlier response.—*Ohio State Med. Jour. March* 1937

MEDICAL SCHOOL TUITION INCREASED

Income from endowment, tuition and fellowships proving insufficient for the financial operation of the University of Cincinnati, College of Medicine, the Board of Directors of the university has authorized an increase of $100 a year for tuition, effective with the freshman class which will enter in 1938.

The scale of tuition for medical college students after that date will be as follows: (1) $450 a year for regular students who are legal residents of the city of Cincinnati; (2) $500 a year for regular students who are not legal residents of the city. —*Ohio State Med. Jour., March* 1, 1937

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If as you walk into the Western Pennsylvania Hospital in Pittsburgh, a young woman in a smock approaches you with a "May I help you in any way at all" expression on her face, you can safely relax and know your worries are over. You have been temporarily adopted by a member of the Junior Committee, says The Modern Hospital. Many years ago the first group of junior volunteers was organized. These girls were stationed in a receiving line as hostesses. Their willingness invited more responsibility. Student nurses gradually surrendered minor duties to the volunteers, who now do a considerable variety of hospital work. The Junior Committee operates somewhat as a club. Its membership is limited to seventy-five and new volunteers come in by nomination. Their working hours are in the morning, the hospital's busiest time, and they appear with salary earning regularity. Their duties are legion. They carry messages; they read letters and books to the sick; they talk to lonesome patients; they write letters; they help to guide and roll occupied beds from different parts of the hospital; they roll bandages; they remind clinic patients of their appointments; they do filing, and, on the operating room floor, they are the connective link between the surgeons and the rest of the world.
—*N. Y. State Jour. Med., March* 1, 1937

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A mental hygiene clinic in Lincoln was recently advocated by Dr. Paul Royal before a gathering sponsored by the City Health Department.—*Nebraska State Med. Journal, February* 1937.

WHAT DID HE DO IN HIS SPARE TIME?

An interesting example of contract practice recently came to our attention from a fair sized city in Illinois. One physician received the contract for supplying necessary medical care to the indigent for the sum of $1,400.00 per year. He furnished all drugs and supplies; his annual report shows that during the past year he pulled 542 teeth, performed five hysterectomies, seventy-two other abdominal operations, attended fifty-five obstetrical cases nearly all of them in the homes. During the year he recorded 5,703 office visits, 3,223 residence calls, sixty-six visits to the county home, fifty-seven police calls, fifteen to the county jail, and 177 calls to the rural districts, the distance varying from eight to twenty-three miles each. It is quite obvious that this contract physician actually earned the money which was paid for his services.

—*N. Y. State Jour. Med., March* 1, 1937

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PICRIC ACID-ALUM SPRAY IN POLIOMYELITIS

According to the experience of the U. S. Public Health Service in Jefferson County, Alabama, the picric acid-alum intranasal spray as a preventive against poliomyelitis lacks much to be desired. The most effective means of application as well as the most ideal solution has probably not yet been found. Children resist this method of treatment and thus render spraying difficult. Many unpleasant local symptoms followed the use of the spray. The actual incidence of poliomyelitis in the group sprayed by whatever method was somewhat less than the calculated incidence based upon the rate in the unsprayed control group.—*Extract of Article in Jour. Med. Assoc. of Alabama, February* 1937.

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HOSPITAL PHYSICIANS TO BE PAID

The campaign carried on by more than 2,000 physicians of Buenos Aires who up to the present have given their services to the public in the hospitals of the city without any remuneration has succeeded. A bill has been approved by the national congress by which an allowance of 5,000,000 pesos (about $2,500,000) will be given every year from now on to pay physicians in public hospitals for the work they do.

—*Jour. A. M. A., Jan.* 9, 1937

MALARIA IN KENTUCKY

The joint activities of the U. S. Public Health Service and the State Department of Health brought to light two important factors: First, that malaria was much more prevalent in Kentucky than had been believed and, second, that there were distinct indications that it was spreading not only in the so-called "Malaria Belt", but also to areas not theretofore considered as subject to the malaria menace. The figures leave no ground for doubt that a serious malarial situation exists in many sections of the State and that energetic effort should be made to reduce the prevalence of the infection and to prevent its spread to other sections.

Not only is malaria increasing in Kentucky, as is conclusively shown by the constantly increasing cases reported, but outbreaks this year have occurred in several sections which had heretofore been free from malaria for a considerable period. This means that malaria is constantly and steadily spreading and will continue to spread until its sources are entirely eliminated everywhere in the State. Only a few cases or carriers are required to start a series of outbreaks.

If the mortality rate of malarial fever were as high as that of typhoid fever or some of the other preventable diseases, there is no doubt that the public would insistently demand that the Anopheles mosquito be eradicated. But, while the death rate is comparatively low, the cost entailed by malaria, through long illness, with consequent loss of efficiency and income, is very high. Indeed, in some sections of the State this loss is generally recognized as constituting the principal cause of serious economic distress.

In such circumstances, the question becomes one not of what we can afford to spend, but of what we cannot afford not to spend. Public health and public economy combined in demanding that the malaria control work be carried forward, continuously and energetically, until the problem has been definitely and completely solved.—*Kentucky Bull. Dept. of Health, January* 1937.

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To the glory of the medical profession it is stated that it is becoming next to impossible to get medical testimony for the plaintiff in malpractice suits.—*Nebraska State Med. Journal, February* 1937.

PROGRAM OF POST-GRADUATE EDUCATION FOR THE PREVENTION OF DISABILITY IN WISCONSIN

The crippled children's program in Wisconsin is carried out by the Crippled Children Division of the State Department of Public Instruction under the supervision of the Wisconsin Interdepartmental Committee on Services for Crippled Children. A series of meetings has just been completed in cooperation with the State Medical Society, for postgraduate education of local physicians in prevention of disability. Since this is the first State postgraduate program of this sort to be given under the social security program and since it was highly successful, it seems worth while to describe it in some detail.

The State Medical Society was of great assistance in developing the subject matter for the meetings, and in handling the publicity. The councillor of each district of the State Medical Society had the responsibility of sending out the original publicity, with a follow-up letter which came from the office of the State Medical Society. Honoraria to the physicians who spoke on the programs were paid by the Crippled Children Division, and amounted to $25.00 per meeting, plus travel expenses. The program was given in each of the thirteen medical districts of the State, so that there were thirteen meetings in all.

About 15 different physicians took part in the program for the entire series of meetings. Four physicians spoke at each meeting; two orthopedic surgeons, each speaking twice, and covering the subjects "Fractures of the Elbow in Children," "Acute Osteomyelitis in Children" and the two sections of the subject "Infantile Paralysis." The subject of "Prevention Through Periodic Observation" was handled by a pediatrician, and that of "Rheumatic Fever and Heart Disease" was taken up by a cardiologist.

There was lively discussion in all the meetings, and the Crippled Children Division has received many favorable comments from doctors all over the State who attended them. The program brought physicians of the State in touch with the crippled children's program and demonstrated the fact that the general practitioner can assist greatly in the prevention phase of the program. The Crippled Children Division hopes to repeat the program within a few years, so that physicians who missed the first one will have another opportunity to attend.

It is estimated that 500 physicians attended. This is about one-fifth of the total number of physicians in Wisconsin. The total cost was $1,960.80, including $1,400 for physicians' honoraria and $460.80 for travel expenses.—*The Child, February* 1937.

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RICHMOND, VIRGINIA HAS A MEDICAL SERVICE BUREAU

The Medical Service Bureau sponsored by the Richmond Academy of Medicine was put in full operation early this year. Its governing board is to be elected annually from the Academy's membership. "The purpose of the Bureau is to assure to the patient due regard for his actual economic status and to permit him to obtain essential medical service upon budgeted terms consistent with that status; and to protect physicians from becoming the victims of unscrupulous individuals who, though able to pay, are constantly adopting various subterfuges to avoid doing so". The fee is determined upon by patient and physician. The Bureau collects from the patient data concerning his financial status and determines how much he shall pay for medical service on each pay-day. Ten per cent is retained for overhead. Richmond has a group hospitalization service, and the new Bureau will be operated conjointly with this service.

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GEORGIA TO PROVIDE ADEQUATE NURSING CARE OF THE PATIENT

A large number of the small, inadequate schools of nursing in Georgia have closed, according to the Journal of the Medical Association of Georgia. Much of the bedside nursing is now being given by the general staff nurse. The necessary adjustment to this type of nursing service has been difficult in many instances, both for hospitals and nurses. To improve the standard of nursing in the state, the Georgia State Nurses' Association at its 30th Annual Convention in November 1936 voted to endorse and adopt the "Resolutions on the General Staff Nurse and Employment Conditions on Which Good Nursing Service Depends", which were adopted by the American Nurses' Association in Los Angeles, June 1936.

Chicago, Ill.—One of the most outstanding scientific events ever held in the United States has been set for Chicago this September, when the Fifth International Congress of Radiology convenes. It will be the first time that the world leaders in the medical and scientific development field of X-ray and radium have met in America, according to Dr. Arthur C. Christie, Washington, D. C., president of the Congress. The dates are September 13 to 17, inclusive, and the meeting place is the Palmer House.

At least 500 distinguished delegates and guests from a score of European countries as well as physicians from Mexico, Canada and Central and South America are expected to attend, with more than 2,000 other delegates and visitors from all parts of the United States.

The annual medical conventions of the leading radiological bodies of this country will be merged with the international congress. These include the American Roentgen society, the American College of Radiology, the Radiological Society of North America and the American Radium society.

The first International Congress of Radiology convened in London in 1925. Meetings are held every three years. The physicians and physicists met in Stockholm in 1928, in Paris in 1931 (where they paid tribute to the then living Madame Curie, co-discoverer of radium) and in Zurich in 1934.

Leaders in other branches of medicine will paritcipate in the congress too as Dr. Christie points out that "The Unity of Medicine" will be the theme of the entire Congress.

"These international congresses seek to maintain a continuity of program over the years, and in consequence such vital subjects to the radiologist (and to the general public) as diagnosis and treatment of cancer and many other diseases and teaching and training in radiology will be on the agenda of this congress as well as at former meetings.

"Radiology is an important branch of medicine, and is indeed part of the entire tree, and not merely a specialty as it was once regarded," added Dr. Christie.

More than 250 scientific papers will be read at the five-day meeting. These will be delivered in each lecturer's own language and will be automatically flashed on screens in English, German and French as the papers are read.

What will probably be the greatest scientific and technical exhibit in the history of a radiological congress will be assembled by physicians, physicists and manufacturers of such equipment in conjunction with the congress.

The general secretary of the congress, Dr. Benjamin H. Orndoff, is in charge of headquarters at 2561 North Clark Street, Chicago, Ill. Honorary vice-presidents are Dr. George E. Pfahler of Philadelphia, Dr. James Ewing of New York and Dr. William D. Coolidge of Schenectady, N. Y. On the International Executive Committee are Dr. Arthur C. Christie of Washington, D. C., chairman; Dr. C. Thurstan Holland of Liverpool, Dr. Gosta Forssell of Stockholm, Dr. Antoine Beclere of Paris, Dr. Hans R. Schinz of Zurich, Dr. Karl Frik of Berlin, Dr. Mario Ponzio of Turin, Italy, Dr. Tamotsu Watanabe of Osaka, Japan; Dr. Heliodoro Tellez-Plasencia of Santander, Spain; and Dr. Gottwald Schwarz of Vienna.

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Dr. John R. Brinkley and his radio station, X E R A, at Villa Acuna, Mexico, are the subjects of a formal letter of complaint recently filed with Secretary of State Cordell Hull by the National Institute of Manufacturers and Distributors. The letter charges that this station is being used "for unfair, if not illicit, competition with loyal and taxpaying business and professional enterprise in this country"; and urges that the Department of State close the Mexican border to Dr. Brinkley and associates (who are all resident citizens of the United States) by cancellation of their passports.

—*Journal Kansas Med. Soc., March* 1937

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The General Federation of Women's Clubs will conduct a nation-wide campaign for the reduction of maternal death rates during 1937. The advisory board of public welfare and child health of the Department of Public Welfare, representing 16 medical and public-health groups has been aiding the Division of Child Welfare of the Federation in planning for this movement. The Chairman of the advisory board is Dr. Thomas Parran, Surgeon General, U. S. P. H. S., and on this board representing State and Provincial Health Authorities of North America is Dr. Stanley H. Osborn, Connecticut State Commissioner of Health.

NEW LEGISLATION ON THE CARE OF CRIPPLES IN NORWAY

A law recently enacted in Norway provides for the care of cripples by the Government, instead of by private agencies as formerly. Facilities for the care of cripples in Norway have long been considered unsatisfactory, and a bill to remedy conditions was introduced as long ago as 1924.

The date on which this law is to become effective was to be announced later.

Under the new law the work for cripples is to be done in the communes (smallest administrative division of the country) by the local branches of the public-health service or by special committees appointed by the service; the work of these local agencies throughout the country is to be supervised by a national board for the care of cripples, attached to the public-health service.

Physicians, midwives, clergymen, teachers, and in some cases nurses are required by the law to report to the public-health authorities cases of crippling or cases in which there is danger of crippling. The law authorizes the issuance of regulations requiring public and private schools, poor-relief authorities, and other public and private welfare agencies to report these cases.

Compulsory examination of cripples by a physician appointed for that purpose by the authorities is provided for. The cost of the examinations is met by the commune of the cripple's residence, or by the national treasury if there is no established residence.

Cripples in need of medical treatment, instruction, or vocational training are entitled to treatment or training or maintenance in special institutions for cripples to be established by the Government, or in private institutions supervised by the Government.

The cost of maintaining crippled children in institutions, including the cost of clothing, articles needed for treatment, and other incidentals, is met by the commune if the parents are unable to pay and if no payments are made by an insurance organization. Destitute cripples who are not in institutions are helped by the communes with the necessary appliances. They may be asked to repay later part or all of the cost.

Crippled children between 7 and 18 years of age may be required to attend special schools to be established by the Government, but so far as possible they are to attend the regular public schools. The school-attendance law in force up to this time exempts a child from attendance when he is unable to go to school because of a mental or physical defect. As a result, crippled children were deprived of instruction if their parents were unable to make the necessary provision for them elsewhere. A new school-attendance law, passed in Norway in July 1936, which is to become effective in July 1937, requires crippled children to attend public schools when their mental abilities are sufficiently good, when the defect is such that it would not prevent studying, and when hospital or other institutional treatment in the opinion of the authorities, is not required.

The Government of Norway is to refund two-fifths of the commune's expenditure on the care of cripples, and up to four-fifths if this expenditure is unusually large.—*Norsk Lovtidende (official collection of the laws of Norway), Oslo, Nos. 24 and 28, 1936.*

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E. C. Dodds in "Discussion on the Present Position of Hormones in Obstetrics and Gynecology" (Proc. Royal Soc. Med. Jan. 1937) calls attention to the importance of recognizing myxoedema occurring in association with such gynecological conditions as amenorrhea and instituting thyroid therapy previous to any hormonal therapy. H. Gardiner-Hill in the same issue reports unsatisfactory results with hormones in most conditions, except for the use of proluton in repeated abortions and oestrin in disturbances of the climacteric, the latter provided the proper dosage can be attained. T. N. MacGregor is quite enthusiastic over the results obtained in the use of the oestrogenic hormones in menopausal and post-menopausal conditions. P. M. F. Bishop finds small doses of oestrin by mouth relieve the menopausal symptoms and large doses "have a miraculous effect on such sequelae as pruritus vulvae, atrophic senile vaginitis and vaginal ulceration and kraurosis".

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Physicians and surgeons interested in group malpractice insurance may be interested to know that Lloyd's of London is about to enter into an arrangement with the Nebraska State Medical Association to sell group insurance to the profession.—*Nebraska State Med. Journal, February* 1937.

Correspondence

STATE OF CONNECTICUT
EXECUTIVE CHAMBERS, HARTFORD

April 13, 1937

Dr. Stanley B. Weld,
179 Allyn Street,
Hartford, Connecticut.

Dear Dr. Weld:

My thanks to the Journal of the Connecticut State Medical Society for congratulations on my seventy-fifth birthday.

Believe me,
Most sincerely yours,
Wilbur L. Cross

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January 27, 1937.

To the Editor:

Although there are a large number of medical books published it is obviously impractical for the average physician to buy all of them. I would be willing to pay a reasonable fee for the purpose of looking over certain books for a week or so before returning them (as in a circulating library).

If there are other physicians in the state to whom this idea appears feasible I would be pleased to hear from them.

H. A. Geib, M.D.,
Milford, Conn.

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COMING MEETINGS

American Association of Orthopedic Surgeons, Los Angeles, Cal., January 15-19, 1938.

American Association of Railway Surgeons, Chicago, Ill., September 21-22, 1937.

American Clinical and Climatological Association, Baltimore, Md., October 11-13, 1937.

American Medical Association, Atlantic City, N. J., June 7-11, 1937.

American Opthalmological Society, Hot Springs, Va., June 3-5, 1937.

American Proctologic Society, Atlantic City, N. J., June 6-8, 1937.

American Public Health Association, New York City, October 5-8, 1937.

American Urological Association, Minneapolis, Minn., June 29-July 1, 1937.

Association of American Physicians, Atlantic City, N. J., May 4-5, 1937.

Associated Anaesthetists of the United States and Canada, Atlantic City, N. J., June 7-11, 1937.

Association of Military Surgeons, Los Angeles, Cal., October 14-16, 1937.

National Tuberculosis Association, Milwaukee, Wis., May 31-June 3, 1937.

New Hampshire State Medical Society, Manchester, N. H., May 11-12, 1937.

New York State Medical Society, Rochester, N. Y. May 24-26, 1937.

Rhode Island Medical Society, Providence, R. I., June 2-3, 1937.

Maine Medical Association, Belgrade Lakes, Me., June-20 22.

Massachusetts Medical Society, Boston, Mass., June 1-3.

Vermont Medical Society, St. Johnsbury, Vt., October 14-15.

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MEDICAL EXAMINATIONS AND LICENSURE
COMING EXAMINATIONS

National Board of Medical Examiners

National Board of Medical Examiners: Parts I and II. May 10-12, June 21-23, and Sept. 13-15. Ex. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia.

Special Boards

American Board of Dermatology and Syphilology: Oral examinations for Group A and B applicants will be held in Philadelphia, June 7-8. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Obstetrics and Gynecology: Practical, oral and clinical examinations for Group A and B applicants will be held at Atlantic City, N. J., June 7-8. Applications must be received at least sixty days prior to the examination dates. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6).

American Board of Opthalmology: Philadelphia, June 7. All applications and case reports, in duplicate, must be filed not later than April 7. Sec., Dr. John Green, 3720 Washington Blvd., St. Louis, Mo.

American Board of Orthopaedic Surgery: Philadelphia, June 12. Sec., Dr. Fremont A. Chandler, 6 N. Michigan Ave., Chicago.

American Board of Otolaryngology: Philadelphia, June 7-8. Sec., Dr. W. P. Wherry, 1500 Medical Arts Bldg., Omaha.

American Board of Pediatrics: Atlantic City, N. J., June 6, Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Illinois.

American Board of Psychiatry and Neurology: Philadelphia, June. Sec., Dr. Walter Freeman, 1028 Connecticut Ave., Washington, D. C.

American Board of Radiology: Atlantic City, N. J., June 4-6. Sec., Dr. Byrl R. Kirklin, Mayo Clinic, Rochester, Minn.

American Board of Urology: Oral examination. Minneapolis, June 25-26. Sec., Dr. Gilbert J. Thomas, 1009 Nicollet Ave., Minneapolis.

- NEWS -
from County Associations

Fairfield

The Division of Mouth Hygiene in the State Department of Health with the cooperation of the State Board of Education and local Boards of Education has completed the first unit in its program designed to give representative educational service to rural schools in the State. In this educational program the relationship between proper diet, sunshine, play, rest and fresh air and the formation and maintenance of healthy strong bodies and healthy teeth free from caries has been demonstrated. The individual instruction in the mechanics of keeping the mouth — teeth, gums, and tongue clean and healthy, and the prophylaxes, along with the charting of defective teeth constituted added features designed to stimulate early correction of existing defects.

In the fourteen schools in which the hygienists worked in Fairfield County, a total of 820 mouths were examined. This figure represents practically 100 per cent of the school registration for the first three grades. The final figures reveal the fact that 86 per cent of these children, ranging in age between six and eight, needed dental attention. It was further estimated that 25 per cent of the whole group needed immediate dental attention. This would indicate that a rather intensive follow-up program was not only desirable but urgent. Mothers of children as well as school teachers and principals were reached and interested through this project.

Hartford

The Hartford Medical Society, at a meeting held January 4th, 1937 in the Hunt Memorial, named its library the Walter R. Steiner Medical Library in honor of Dr. Steiner society librarian since 1903. This tribute is of public interest because it brings to notice once more the existence of this valuable library and records another of the many interests and labors of this leading physician and citizen.

A special Commission for a scientific study of mental defectives in Connecticut has been appointed by Governor Cross to work in cooperation with the Carnegie Institution of Washington. The Institution will provide funds for the study, to cover the types of cases of mental defectives, their number, their family backgrounds and their treatment. The study will be based on the population of the Mansfield State Training School and Hospital and the waiting list for that institution. It is expected that data will be available before the completion of the 1937 General Assembly session. Dr. C. Charles Burlingame, physician-in-chief of the Neuro-Psychiatric Institute of the Hartford Retreat is a member of this Commission.

Dr. James F. Lynch has been elected a director of St. Francis Hospital and re-elected president of the medical staff. Dr. Lynch replaces on the board the late Dr. Arthur J. Wolff. As president of the staff he succeeded in January 1936 Dr. John F. Dowling who resigned owing to ill health.

Dr. J. C. Rowley of Hartford has been reappointed by Governor Cross as a member of the Connecticut Medical Examining Board. The appointment is for a five year term starting January 1.

A medical information bureau patterned after the bureau maintained by the New York Academy of Medicine has been formed by the Hartford Medical Society and the Hartford County Medical Association. This bureau is established for the purpose of supplying to the public adequate and correct information on medical matters through the press and radio. It will be managed by a committee of five members from the city organization and four members from the county organization whose services will be entirely voluntary.

Dr. George E. Cogan, President of the Hartford Board of Health, was authorized on February 17 by this board to appoint a committee to study a plan whereby all infant and maternal deaths in the city would be reviewed at regular meetings of all hospital obstetrical and pediatric services. Such a plan was proposed before the Hartford Medical Society on February 15 by Dr. James R. Miller. The purpose of Dr. Miller's plan is to establish quarterly meetings of the obstetrical and pediatric services of the four hospitals in the city at which time infant and

maternal deaths as reported by the Board of Health would be reviewed. It is felt that only by such a review can the death rate in these two groups be lowered through a standardization of the method of supervising courtesy staff privileges in hospitals and supervision over the spread of contagious puerperal infection. A large hospital in New Jersey with an exceptionally low maternal death rate effects standardization of courtesy staff practice by having one of its own staff members take immediate charge of a case if complications develop. Hospitals in Ohio have followed a similar plan for the past four years.

Dr. Wm. J. Dwyer of Hartford, a licensed aviator for the past five years, has purchased a new five-passenger Beechcraft biplane with a cruising radius of 1000 miles. It has a cruising speed of 185 miles an hour and a top speed in excess of 195 miles an hour. The plane carries all the latest aeronautical instruments for precision navigating and blind flying in addition to a two-way radio and complete fire fighting apparatus.

Miss Rachel McConnell, superintendent of the Hartford Hospital Training School for Nurses and president of the Connecticut State Nurses Association, recently outlined to the Board of Directors of the Hartford County Medical Association the general plan for a nurses registration bureau. The advantages of such a bureau are:— (1) it will relieve hospital nursing staffs of detail work securing private duty nurses; (2) it will enable nurses graduating from other hospital training schools outside a given community to secure immediate recognition in such a community; (3) it will enable the nursing and medical professions to better control work done by private duty nurses.

Proposed plans for a new building in the form of an addition to and reconstruction of the present structure, have been presented to the Hartford Medical Society for consideration. It is not planned to start construction during the current year. Increasing membership taxes the auditorium seating capacity on many occasions. The growth of the library necessitates more stack room.

Southington is to have a new hospital building known as the Bradley Memorial Hospital. Preliminary plans have been agreed upon. The estimated cost fully equipped will be about $100,000. Work will probably be started in the early part of the summer.

Litchfield

Dr. Howard G. Stevens has been appointed health officer of New Milford to fill the vacancy caused by the resignation of Dr. F. E. King, and also health officer of Bridgewater to fill the vacancy caused by the death of Dr. Mary G. Haskins.

Middlesex

Dr. Joseph Magnano has been appointed health officer of Haddam to fill the unexpired term of Dr. J. E. Waldman.

New Haven

Dr. Francis Gilman Blake, Sterling Professor of Medicine at Yale University School of Medicine, was recently tendered a dinner in honor of his fiftieth birthday by present and former members of the department of internal medicine. Dr. George Blumer, who preceded Dr. Blake as professor of medicine, was the toastmaster.

Dr. Lloyd J. Thompson, associate professor of psychiatry at the Yale School of Medicine, has been appointed a trustee of the Meriden School for Boys. Governor Cross named the psychiatrist to fill the unexpired portion of the term of the late Archibald Macdonald of Putnam to July 1, 1939.

On February 4 a dinner was given to Dr. Max Mailhouse by some of his medical friends at the Hotel Taft, New Haven. The occasion was in honor of Dr. Mailhouse's eightieth birthday, which was celebrated on February 5.

Dr. Mailhouse, who is professor emeritus of neurology in the Yale Medical School, is still actively engaged in the practice of medicine, and the large attendance at the dinner was an evidence of the esteem in which his associates hold him.

About fifty physicians from different parts of Connecticut were present, and Dr. George Blumer acted as toastmaster. The committee in charge of the dinner consisted of: Dr. William F. Verdi, Dr. Charles E. Sanford, and Dr. Simon B. Kleiner.

In addition to the toastmaster, the speakers of the evening were: Doctors Charles J. Foote, Ralph A. McDonnell, L. H. Nahum, Henry L.

Swain and William F. Verdi of New Haven; Dr. Walter R. Steiner of Hartford, and the guest of honor.

New London

Dr. John J. Donahue has been appointed health officer of Montville to fill the vacancy caused by the death of Dr. Morton E. Fox.

Dr. Edward J. Brophy of Norwich has been appointed a trustee of the Norwich State Hospital by Governor Cross. Dr. Brophy succeeds Dr. James J. Donahue, member of the board since 1919 and chairman for several years, recently resigning to become compensation commissioner. Dr. Brophy will fill Dr. Donahue's unexpired term until June 30 and then continue with an additional six year term.

Tolland

Dr. Paul H. Jordan, formerly of the Mansfield State Training School and Hospital, has resigned from the Tolland County Association and moved to Worcester, Massachusetts, where he is now practicing.

Windham

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The Association of Military Surgeons of the United States announces the appointment of Mr. Robert Lewin as Director of its convention exhibits.

Mr. Lewin has very successfully directed the commercial exhibits of the American Association of Railway Surgeons and the American Association of Orthopaedic Surgeons for a number of years.

The commercial exhibits of the Association of Military Surgeons have been creating more attention each year and the exhibitors have found this to be a highly profitable meeting.

Anyone desiring information in connection with the Military Surgeons 1937 convention to be held at Los Angeles. October 14th to 16th, the American Association of Orthopaedic Surgeons to be held at the Biltmore Hotel, Los Angeles, January 15th to 19th, the American Association of Railway Surgeons meeting to be held September 21st to 22nd at the Palmer House in Chicago, should address Mr. Robert Lewin, 505 N. Michigan Avenue, Chiacgo, Ill.

INTERNATIONAL CONGRESS ON HEPATIC INSUFFICIENCY

While the universal exhibition is being held in Paris, the International Congress on Hepatic Insufficiency will be in session at Vichy, on the 16th, 17th and 18th of September 1937, under the presidency of a member of the Academy of Medicine, Prof. Maurice Loeper, of Paris. It will be divided into two sections: 1, Medicine and biology; 2, Medical, Surgical and hydrological therapy.

Papers will be submitted in the two sections by the following gentlemen of different countries: Medicine and biology — K. Glaessner, Vienna; The Functional Diagnosis of Hepatic Insufficiency.

R. Debre, Gilbrin, Semelaigne, Paris; Enlarged Liver in Children.

Binet, Paris; The Sulphur Function of the Liver. The Edema Associated with Liver Dysfunction.

Lemaire and Varay, Paris; Pathogenical Study.

J. Olmer, Marseilles; Clinical Study.

Urbach, Vienna; The Skin and the Liver.

Parhon, Bucharest; The Liver and the Endocrine Glands.

Hamilton Fairley, London; The Stages of Hepatic Insufficiency in the Course of Malaria.

Therapy — Lathan A. Crandall, Chicago; A. C. Ivy, Chicago; Anthony Bassler, New York City; Norman Elton, Reading; and Hyman I. Goldstein, Camden; Hepatic Insufficiency in its Relations to General Nutrition and Especially to the Nervous System.

M. Brule, Paris; Hepatic Medications in Cases of Intolerance.

M. Villaret, L. Justin-Besancon, R. Cachera, and R. Fauvert, Paris; Circulatory Insufficiencies and their Medications.

Piery and Milhaud, Lyons; The Hydro-Mineral Therapy of Hepatic Insufficiency.

DeGrailly, Bordeaux; Cellular Insufficiency and its Therapeutic Indications.

Gallart-Mones, Barcelona; Diet in the Restoration of an Impaired Liver.

Pribram, Berlin; Pre-operatory and Post-operatory Hepatic Insufficiency and its Preventive and Curative Treatment.

P. Duval, Gatelier, J. C. Roux, Goiffon, Paris; The Prognostic of the "Operative Crisis" by the Examination of the Hepatic Functions.

It may be recalled that this Congress will be preceded by the Second International Congress on Gastroenterology, to take place in Paris on the 13th, 14th and 15th, September 1937, under the presidency of Prof. Pierre Duval, at which two questions will be discussed: 1, The Early Diagnosis of Cancer of the Stomach, under the presidency of Profs. P. Duval and Gosset of Paris, and of Prof. Konjetzny of Berlin. 2, Acute and Chronic Occulsion of the Small Intestine: Authors have been selected in England, Belgium, Spain, the U. S. A., Italy and Poland for papers dealing with this latter question.

Those desiring to attend these Congresses may receive information by applying to Dr. Anthony Bassler, 121 East 71st St., New York City. A large contingent from this country are arranging to go.

OBITUARIES

ABRAHAM LeWITT, M.D.
1871 - 1934

Abraham LeWitt was born in Turkey on December 1, 1871. When he was very young, his parents moved to Russia where he attended the Polycove School of Mining Engineers from which he was graduated with the highest honors, receiving the degree of Mining Engineer. In 1890 he came to the United States and was employed in his profession at Scranton, Tenn., for a short time.

Desiring to be near members of his family, he moved to Connecticut. After a few years employment in the engineering field in New Britain, he decided to study medicine and matriculated at the Cornell University Medical College from which he was graduated in 1900. Following this, he served his interneship at Beth Israel Hospital in New York.

Dr. LeWitt came to Hartford in 1902 and after a few years of general practice returned to New York in order to take post graduate work at the Ear, Eye, Nose, and Throat Hospital of that city. He also studied abroad in Vienna and Berlin.

Returning to Hartford to resume his practice, Dr. LeWitt later became one of the founders of Mt. Sinai Hospital there and Chief of its Medical Staff.

He died at Hartford on August 11, 1934, after a short illness.

Dr. LeWitt was highly regarded both by his professional associates and by his patients who valued his friendship and respected his ability. He was a member of the Hartford County Medical Association.

Fraternally Dr. LeWitt was a member of St. John's Lodge of Masons.

Dr. LeWitt is survived by his wife (Sophie Apell) and one son, Solomon.

B. Zeman, M.D.

FRANK E. GUILD, M.D.
1853 - 1935

It is with a keen sense of loss and deep emotion that I honor the memory of one of our most distinguished members, Dr. Frank E. Guild who passed away on Feb. 3rd (1935) at the age of 81 years and 5 months. He died as he had lived, unostentatiously, gently and nobly. Born at Thompson, Conn., on Aug. 14, 1853, Dr. Guild graduated from the New Britain Normal School in 1874 and taught school at Woodstock, Conn., for eight years before he began the study of medicine. In 1885 he graduated from the Long Island Medical School and interned at King's County Hospital. In 1897 Dr. Guild married Miss Harriet Clark of Putnam, Conn. Of this union were born one son, Allan, and two daughters, Dr. Harriet E. Guild and Mrs. Julia Danielson.

Dr. Guild belonged to the Willimantic, the Windham County, the State and the American Medical Societies. He has held the office of president of both the city and county societies and was at one time vice-president of the Connecticut State Medical Association.

For forty-eight years Dr. Guild as a successful physician ministered unto the sick with a conscientious and devotion that won for him the friendship and admiration of his colleagues and patients. As President of St. Joseph's Hospital for twenty-three years and as President of the Windham County Memorial Hospital since its opening two years ago Dr. Guild brought to these institutions the spirit that emanated from his gentle and deep understanding nature.

Nor were his activities confined to the medical profession. Ever mindful of his early interest and with the firm conviction that in the proper education of youth lies the future of the country Dr. Guild served a term of forty years as a member of the School Board of the Town of Windham and thirty-six of those years as Chairman of this Board. It was under his able guidance,

kind encouragement, and far-sightedness that the School Board achieved the excellent results of which our town is rightly proud.

The passing of Dr. Guild is a great loss to the medical profession, to the school system, to the towns in which he carried on his activities, and more than to all to a devoted wife and children. To the members of his bereaved family and to the many friends for whom his death is a personal loss we extend our heartfelt sympathy and offer the consoling thought that "more lasting than bronze or marble is the living memorial he has left in the hearts and minds" of all those who had the privilege of knowing him in life.

J. A. Girouard, M.D.

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DANIEL JOSEPH McCARTHY, M.D.
1882 - 1935

Doctor Daniel J. McCarthy died at Saint Vincent's Hospital on April 23, 1935. He was born in Ansonia May 29, 1882.

Doctor McCarthy received his early education in the public schools of Ansonia and entered the College of Physicians and Surgeons in Baltimore in 1902. He graduated from that school in 1906. While in medical school he served as Class President in his senior year.

He interned for one year at Saint Vincent's Hospital in Bridgeport and then began practice in that town, continuing there until the time of his last illness.

Doctor McCarthy was interested in surgery and joined Saint Vincent's Staff first as an Assistant in Surgery, and then as head of his own service. He also served as President of the Staff for one year.

He was a member of the American College of Surgeons, American Medical Association, the State and County Societies and, at the time of his death, was President of the Bridgeport Medical Association. He was a member of the Knights of Columbus and the Elks Club.

Doctor McCarthy was devoted to his patients, and was very charitable when there was no hope of reward for his work. His many patients will long remember him for his faithfulness and skill in caring for the troubles for which they consulted him.

Cornelius S. Conklin, M.D.

ABRAM AARON HERSHMAN, M.D.
1886 - 1935

Doctor Abram Aaron Hershman was born in Russia in 1886, and was brought to the United States at the age of 18 months. His father was Israel Hershman, a merchant, and a profound Hebrew classicist. Dr. Hershman went to the Public Schools in New Haven, and entered the Yale Medical School in 1904, whence he graduated in 1908. He spent his period of Interneship at the Lebanon Hospital in New York City, and returned to New Haven to enter the practice of Medicine in 1910. Though his practice was of a general character, he became interested in Obstetrics and Gynecology early in his career, and in 1926 went abroad to perfect himself in the techniques of his chosen field.

In 1920 he married Miss Pauline Adelman of Pittsburgh, who with one brother and two sisters survives him. He was an active member of the Staff of Grace Hospital, in his chosen specialty for many years, and did his work in a manner which evoked the respect of his colleagues and the gratitude of his patients. His character and personality were kindly and genial, and it was characteristic of him that he always spoke well of his fellow men, avoiding acrimony and conflict at all times. He always participated in the intellectual work of the Hospital Staff, and rarely failed to attend meetings of the local and State Medical Societies of which he was a member.

He was stricken in his office in July, 1935, and examination and operation showed him to be suffering from a Tumor of the Brain. His courage never left him during his conscious hours. He succumbed on November 10, 1935. His memory will ever be revered by his friends, colleagues and patients.

Maxwell Lear, M.D.

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HUBERT D. BRENNAN, M.D.
1863 - 1936

Doctor Hubert D. Brennan was born in Poultney, Vt., on November 29, 1863. He received his education in the schools of his native place and in the University of Vermont, at Burlington, and was graduated from the medical college of the University with the class of 1893. He took up the practice of medicine in Rutland, Vt., for a year, coming to Bristol, Conn., in 1894.

His death occurred at his home 211 High St., Bristol, Conn., February 27, 1936, after an illness of three months.

Doctor Brennan was a member and past president of the Bristol Medical Society and a member of the Hartford County Medical Association. He was one of the organizers of the Bristol Hospital and was a member of the surgical staff from its start. For about sixteen years he served the City of Bristol as health officer and was the first health officer under the city government.

He was a devout communicant of St. Joseph's Church and a trustee of that church for many years.

Fraternally, he was a member of Palos Council, 25, Knights of Columbus, of Rev. M. B. Roddan Assembly, Fourth Degree, Knights of Columbus, of Compounce Tribe No. 15, Improved Order of Red Men, and of Court Forest, Foresters of America, in Forestville.

He was married in Bristol, Conn., on August 7, 1905, to Miss Cecelia Fanning, who died on April 30, 1931. He is survived by a brother, Attorney Daniel G. Brennan of Staten Island, N. Y., two sisters, Miss Catherine Brennan of New York City, and Mrs. Margaret Hanley of Fair Haven, Vt.

Doctor Brennan conducted a large and successful practice in medicine and surgery. He was often sought by others as a consulting physician and his opinions bore much weight. In his death the medical profession loses a companionable colleague. His genial manner and his untiring devotion to his patients always will be cherished memories.

"His years are spent, his work well done,"
His reward should be ample.

Benedict N. Whipple, M.D.

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CLARENCE E. SIMONDS, M.D.
1874 - 1936

Clarence Eugene Simonds was born in Mansfield, Connecticut, on February 13, 1874, a son of William A. and Mary (Lee) Simonds and died at his home, 288 North Street, Willimantic, Connecticut on April 1, 1936 at the age of 62.

His early education was received in the schools of Mansfield and the Willimantic High School. He studied medicine at New York University Medical School, graduating in 1897.

He first practiced in Danielson, then in South Coventry, Conn., for three years. Following a special course in electro-therapeutics he located in Willimantic in 1905.

Dr. Simonds was engaged in the general practice of medicine in Willimantic for thirty years being especially skillful in Obstetrics and in the treatment of children's diseases. He was very fond of children and his pleasing manner of approach allowed him to win them to him. In that way he became known as one of the leading Pediatricians of the state.

He was a Fellow of the American College of Physicians, a member of the American Medical Association and of the Connecticut State Medical Society, a Councillor from the Windham County Medical Association to the State Medical Society and a past president of the Windham County Medical Association and of the Willimantic Medical Society. At the time of the World War he served on the selective service board for the Town of Windham and was later commissioned a Captain in the Medical Corps, serving at Camp Greenleaf, Georgia.

At the time of his death he was President of the Professional Staff of the Windham Community Memorial Hospital and from the time of its opening until his death his devotion to the hospital was one of the guiding factors of his life.

On October 4, 1899, Dr. Simonds was married to Ella R. Stearns of Mansfield who survives him with one son, Harold S., a teacher in the high school at Pelham, New York.

The following is quoted from a local newspaper at the time of his death: "Dr. Simonds was willing to respond to the call of duty at any hour, striving in every possible way to bring about the patient's recovery with as few visits as possible, the almighty dollar not being the main object of his life."

Dr. Simonds was a man of quick and wholesome wit. He lived to do good and left behind him a memory of kindness, love and mercy in the hearts of the many who had the privilege of knowing him.

Fred M. Smith, M.D.

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HERBERT deG. SHERMAN, M.D.
- 1936

Dr. Herbert deG. Sherman of White Plains, N. Y., X-ray specialist and Roentgenologist of

Greenwich, Connecticut Hospital, died June 18, 1936, at Grasslands Hospital after a six months' illness. He was 46 years old.

Dr. Sherman was born in the Tremont section of New York, son of the late Frederick J. and Nellie Clarke Sherman. He was graduated from the New York Homeopathic Medical College in 1915.

He enlisted as a first lieutenant in the Medical Corps at the outbreak of the World War and served in France as a captain with Mobile Operating Unit No. 1. His activity in the X-ray field during the war led him to specialize in that branch of the profession upon his return to civilian life.

He was appointed Roentgenologist at Greenwich Hospital in 1921 and shortly before his fatal illness had completed successful research in the application of radiology to the treatment of tuberculosis. He received a certificate as an approved radiologist from the American Board of Roentgenology.

He was a member of the White Plains Lodge, F. and A. M.; the local American Legion Post, the Westchester County and the Connecticut State Medical Societies. He maintained offices at White Plains and at Greenwich.

His widow, Mrs. Marie Young Sherman, three daughters, Mary Louise, Audrey, and Phyllis, and a sister, Mrs. Charles Hughes, all of White Plains, survive.

C. Stanley Knapp, M.D.

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ROSS ELLIOT BLACK, M.D.
1879 - 1936

It is because of my utmost respect and admiration for the character of the deceased, Doctor Ross Elliott Black, who passed away on September 27, 1936, that I have accepted the sad mission of writing his obituary. I have none but pleasant memories of my associations with him in our profession as well as in friendship for over twenty-five years.

Doctor Black was born in Huntington, Pa., on November 26, 1879, the son of Mr. and Mrs. Jacob Hoffman Black. After graduating from the High School in Huntington, he attended Juniata College. He was graduated from the College of Physicians and Surgeons in N. Y. in 1905; and interned at St. Barnabas Hospital in Newark, N. J., for eighteen months and then, for six months, at the Lying-In Hospital in N. Y. Following this he was appointed to the New York City Health Department and served at the Contagious Diseases Hospital on North Brothers Island and the Willard Parker Hospital in Brooklyn, N. Y. He engaged in private practice of medicine in the city of New London in 1908.

During the World War Doctor Black served as Captain in the Medical Corps of the United States Army. He served as Lieutenant, and later as Captain in the Medical Corps of the Connecticut National Guard, being assigned to duty with the Coast Artillery in 1910. He was examiner for the New London draft board until 1918; and then was commissioned a Captain in the Medical Corps of the United States Army and assigned as instructor at the Yale Army Laboratory School, and later at Tobyhanna, Pa. He was honorably discharged in 1919 and returned to New London to resume his private practice.

Doctor Black was a member of the New London City Medical Society, the New London County Medical Association, the Connecticut State, and the American Medical Association. For a number of years he was medical examiner and health officer for the town of Waterford. He served on the staff of the Memorial Hospital and was director of the Contagious Ward. After the Memorial Hospital was discontinued he became a member of the staff of the Home Memorial Hospital and served as chief of the medical staff. He was also a member of the board of directors.

Socially he was a 32nd degree Mason; a member of Palestine Commandery, Knights Templar, of this city, and Pyramid Temple, Ancient Arabic Nobles of the Mystic Shrine of Bridgeport; he was also a member of the Mohegan lodge, I.O.O.F., and the Harbour Club of New London.

Doctor Black was fond of out-door life and for recreation indulged in fishing and hunting in his spare time.

He is survived by his widow, the former Laura Ellen Page; a son Ross Elliot Black, Jr., who is a student at the Massachusetts Institute of Technology; three sisters and three brothers; one of whom, Doctor John Torrington Black, was health officer of the city of New London and later of the State of Connecticut.

Through his untiring devotion, many kindnesses and generosity to his patients and all those with whom he was associated, professionally or socially, a magnificent monument to his memory has been created; not of stone or metal, shaped by sculptor's hands, but built on a foundation of gratitude and esteem of his patients and his friends. His sudden, untimely death came as a shock and surprise to all.

Emanuel A. Henkle, M.D.

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MORTON E. FOX, M.D.
1870 - 1937

Dr. Morton E. Fox was born in the Town of Waterford, September 24th, 1870, the son of Jacob B. and Lavise Newton Fox.

He spent his boyhood days in the Town of Waterford, where he received part of his preliminary education. He finished his education in the New London schools. Dr. Fox received his medical education at Long Island College Hospital, where he graduated in 1893 with honors. He was a good student and very well liked by his classmates. After graduating from college he practiced medicine in the Town of Waterford, until January 11th, 1894, when he moved to Montville, to take over the practice of Dr. William Burchard, who at this time retired from private practice on account of ill health.

On October 7th, 1894, Dr. Fox was united in marriage with Effie Crawford. There were no children to this marriage.

Dr. Fox enjoyed a large practice in the Town of Montville and the surrounding villages from 1894 until the middle of the summer of 1936. At this time he was compelled to retire from private practice on account of ill health. During this time he served the Town of Montville capably and efficiently as Health Officer for thirty-nine years. He was also Medical Examiner for a period of thirty years. He served on the school board in the Town of Montville for fifteen years. He was a member of Oxoboxo Lodge of Free and Accepted Masons, and the Thames Lodge, Independent Order of Odd Fellows, and he was a member ot The First Baptist Church in Waterford.

During the last part ot his final illness he found peace and comfort on the old farm where he was born, in the Town of Waterford, where he died following an attack of pneumonia, January 2nd, 1937.

The passing of Dr. Fox means a great loss to the medical profession in New London County and to the number of friends and patients whom he so ably served during his long practice in medicine in Montville.

Robert R. Agnew, M.D.

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ARTHUR R. WEED, M.D.
1881 - 1937

Dr. Arthur R. Weed died in Phoenix, Arizona, February 7, 1937 of a cerebral hemorrhage.

He was born in Plantsville, Conn., October 10, 1881. At an early age his family moved to Granby.

His early education was received at Cushing Academy, and he obtained his medical degree from the University of Vermont in 1912.

He served as an interne at the City Hospital, Blackwell's Island, New York, and at the New Haven Hospital. He then entered private practice in New Haven. He served with the Connecticut National Guard at the Mexican border from 1914 to 1916. During the World War he served with the 26th Division, the A. E. F. in France, being connected with the 102nd Field Hospital and was commissioned a captain in the Medical Corps. He was a member of the teaching staff at the Yale Medical School 1919-1936 and was also on the staff of Grace Hospital.

Dr. Weed was a member of the following organizations: The Connecticut State Medical Society; New Haven County Medical Association; New Haven Medical Association. He also was a Mason. Dr. Weed's wife, a son and a daughter survive.

By his death we have lost a beloved associate whose outstanding character as a physician reflected high honor on our profession and whose memory is a worthy inspiration. It is fitting that we should record his personal qualities as they were revealed to his friends in our daily contact.

His was a sterling character. Its genuineness was reflected in his gentlemanly demeanor at all times, his high-minded sense of duty to his profession and to the public, his unselfishness, his kindness, his understanding and his wholesome good fellowship. A life such as his can-

not end without a sense of loss to those who had been associated with him.

His memory will remain as a choice possession for his children and for a multitude of friends who knew and loved him.

Edgar M. Johnson, M.D.

• Abstracts •

CHARLES W. GOFF, M.D.

Early Diagnosis of Sarcoma of Skeletal Musculature. Shanin, A. N. Soviet Med. Jour., 16, *August* 30, 1936.

This rather comprehensive study suggests, first of all, that an early diagnosis of sarcoma of skeletal musculature is particularly important for adequate treatment. This author believes that a past history of mechanical trauma or an inflammatory process may be definite factors in the development of a high percentage of such sarcomata. The symptom of pain occurs much earlier than swelling. This pain is dull in character, not constant and occasionally spreads over a considerable area. The author complains that most patients, when first seen by a physician, are treated by heat and massage, which he believes is an active cause in the increase of swell ing and rapidity of growth. He advises to avoid physiotherapy in the early stages and to substitute radical excision instead. He believes the muscles of the thigh are more often involved with the muscles of the arm next in sequence. The muscles of the torso are rarely affected. As a rule, this new growth does not impair function of the extremities unless the growth occurs near a joint. If the growth occurs near large nerve branches, they are more readily identified because of the intensity of pain accompanied by par-aesthesia, or anaesthesia. Occasionally, large blood vessels are also involved. In the differential diagnosis, he has but little to offer. He believes that all other growths of the skeletal musculature, have a much slower rate of increase of symptoms than do sarcoma of the muscles. Myositis ossificans can only be differentiated after the calcified deposits have become visible on X-ray examination. Luetic growths are readily distinguished, by a positive blood reaction. The chief diagnostic points of sarcoma of the muscles are painless development, constant, rather rapid increase in size, plus histological findings following a needle biopsy. The histological changes influence the prognosis. The author has no new method of treating this condition.

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New Substances in Treatment of Burns — Nakonova, E. I. Soviet Med. Jour., 16, *August* 30, 1936.

A 70% alcoholic solution of extract of potentillae turmentillae has been used successfully in treating burns. The author states that the great disadvantage is the excessive pain which occurs at the time of application. Burns over large areas should not be treated with this ancient solution. This author studied the use of onion juice which had been prepared by squeezing the vegetable in a press and boiling the substance. This is a very ancient remedy in Russia. This juice was applied to the burned area with pain subsiding at once. The pain, according to this author's report did not reappear before 24 hours. He recommends that onion juice be obtained on the collective farm, sterilized and kept for use. He states that the juice will not lose its properties upon standing.

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On Contraindication of Operative Procedure in Cases of Varicose Veins of Lower Extremities. Egorov, M. A. New Surgical Archives, 36:1, 31, 33, 1936, *Dnepropetrovsk, Soviet Russia.*

Egorov writes in the following manner:

We encounter regularly in our clinic patients with varicose veins of lower extremities and those who underwent excision of these veins. We note that their condition after the operation is considerably worse. The cases seen in our clinic were caused by thrombo-phlebitis of deep veins of pelvis, often complicated by ulcers. The excision of superficial veins, as well as curettage of ulcers gave most unsatisfactory results. Ulcers continued to exist, with disability for the patient.

We recommend the more conservative treatment of using the rubber stocking, bandaging the extremities, and trying to improve the tone of

walls of the affected veins, as well as the condition of the skin of extremities.

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Aseptic Necrosis of the Os Navicular with Ulnar Deviation of the Hand. Andreesen, R. Zentralbl. fur Chir. 7, 393-95. 13 *Feb.* 37.

Andreesen re-states the many difficulties all observers have had in reading roentgen plates of the bones of the wrist, especially from the standpoint of interpreting the existence of a double os navicular from a simple fracture through body of bone. He points out the double anlage of the navicular which accounts for the apparent ease with which the bone separates or fractures. He believes this zone of union of the two centers in the body of the bone is a naturally weak link and suggests that violence exerted on the wrist causes a fracture to occur through this zone. He reports a case with plates showing the fracture through this region and follows it for two and one-half years demonstrating necrosis, aseptic, of the ulnar portion with deviation of the hand toward the ulna as a late result. Osteoarthritic changes also have occurred in his case and are demonstrated readily. The wrist was correspondingly stiff.

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The Care of Flatfoot by the Operative Method of Prof. Petrivalsky. Vohmont, C. Zentralbl fur Chir. 5, 310-14. 30 *January* 37.

After a careful discussion of the types of flat feet with which he is concerned, this author lists three varieties.

1. Without skeletal alterations.
2. With slight skeletal alterations.
3. With marked skeletal alterations.

The first class is treated by conservative means. The second class lends itself to elevation of the longitudinal arch followed by fixation by means of a long and wide periosteal flap taken from the tibia on inner and outer surfaces, swung down and fixed over the tarsal bones after denuding their outer surfaces of ligamentous structures. The foot is then encased in plaster with supination and adduction sufficient to correct the deformity. The third class is corrected with greater difficulty but in the same manner. He reports excellent results, holding their corrected position after four years of use.

The Operative Fusion of the Spine. Frejka, B. Zentralbl. fur *Chir.* 5, 261-63. 30, *January* 37.

This author reports forty-one cases of spinal fusion for various conditions, using a modification of the Albee or Hibbs method, especially directed at the lumbosacral region. Massive bone grafts are taken from the tibia and placed on bed of turned down spinous processes. Additional bone chips are obtained from the tibial condyles of spongy bone and placed so they fill space between long bone grafts. He then states that this procedure permitted his patients to get up six weeks after operation without any support.

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To the Question of Local Insufficiency of Vitamins — Treatment of Burns with "Vitaderm". Balahovski, C. D., Klimenkova, L. A., Cherkassov, F. M. New Surgical Archives 36:1, 49-65, 1937. *Dnepropetrovsk, Soviet Russia.*

These authors write extensively concerning the beneficial affects of a solution high in Vitamin "A", when applied to burns of the skin. This solution is called "Vitaderm". It is reported as having the following formula:

Paraffin, 900 grams.
Linseed Oil, 150 grams.
Carotin, 50 mgr.
Napthol, 5 grams.
Oil of Eucaliptus, 15 grams.

This mixture is heated to a temperature of 80 degrees and lightly painted over the burned area. Subsequent dressing may be made with sterile gauze soaked in this mixture. These authors report using the substance as a spray in burns of small children who are very susceptible to pain. The burned area is first scrubbed with saline, thoroughly dried with sterile gauze and the "Vitaderm" combination sprayed over the area. Sterile dry gauze is then applied over this substance. According to their report, this has proving very valuable in stopping pain and local reaction. The wound is clean and healing takes place more rapidly.

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Modified Tendon Operation in Treatment of Hallux Valgus. Rudofsky, F. A. Zentralbl. fur. Chir. 6, 635, 36. 6 *February* 37.

Rudofsky splits the extensor hallucis longus tendon lengthwise from its attachment to the

terminal phalanx and sutures distal end of the medial portion to the medial surface of the proximal end of the proximal phalanx. He then knocks off the exostosis and removes the bursa. Thus, functionally, the extensor tendon, on contraction pulls the toe into adduction and permanently corrects the deformity.

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Treatment of Fractures of the Os Navicular. Nitsche, F. *Zentralbl. fur. Chir.* 6, 610-15. 6 *February* 37.

The method of long immobilization, introduced by Boehler, has improved results obtained in this type of fracture. Slow healing is the rule with occasionally a pseudo-arthrosis resulting. This author believes such a result is dependent upon too imperfect immobilization of fragments. The least motion permitted about the first and second metacarpal bones is transmitted to the os navicular. The five metacarpal bones are so constructed that they function as a unit and, accordingly, must be immobilized as a whole. Thus, alone, can complete immobilization be given to the navicular. To achieve this, the author includes the proximal phalanx of the index finger and thumb in his circular plaster cast. The index finger is flexed to an angle of forty-five degrees. The other three fingers are allowed freedom. This method has given fewer pseudo-arthroses in end result studies. The length of immobilization is not given.

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Bursitis and its Treatment, New Surgical Archives, 36:1, *Zaytsev, G. P.*, 39-49, 1937. *Dnepropetrovsk, Soviet Russia.*

Bursitis occurs most frequently in people employed at hard manual labor such as mining, carpentering or mason work. It is therefore important to develop a form of treatment which will keep the laborer at work. To accomplish this, the writer believes the bursa must be preserved and not totally excised. He divides bursitis into two main groups and calls them simple and specific. To the first group, belongs bursitis caused by acute and chronic trauma, or infection. To the second group belongs bursitis caused by tuberculosis, syphilis, gonorrhea or rheumatism. He describes the development of bursae about the body and particularly over osseous prominences. In his opinion a ganglion belongs in the second classification of bursitis. The ganglion, however, is, in his opinion, treated successfully only by excision. The usual methods of treating bursitis are described. First method consists of opening the bursa, curretting any spurs which might exist on the floor of the bursa, and then, by means of criss-cross incisions about the wall of the bursa, allow what he designates as a blood supply to develop. The bursa is then dried and painted with weak solution of iodine and closed with four or five tight sutures. In this way the author believes that the bursa is preserved and returns to a normal state. The method of choice, however, seems to be one which does not require hospitalization. This consists of an incision over the superior portion of the bursa, under novocaine anaesthesia, evacuating the contents and irrigating with 3% solution of Rivanol. The bursa is then closed and a compression bandage applied. This writer lays stress upon the dirth of literature in the Russian language which is available to Soviet Russian physicians.

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The Slanting Osteotomy of the Os Calcis as a Type of Operative Correction for Malformation of the Foot. Lindemann, K. Zentralbl. fur Chir. 7, 396-99. 13 *February* 37.

For flat foot, an interesting operation is suggested. A curved incision is made on the outer side of foot beginning 4 cm. above attachment of Achilles Tendon to Os Calcis, extending downward to near point of heel. It then curves forward along side of plantar structures to calcaneocuboid junction. The Achilles tendon is lengthened by any method desired through this incision. The os calcis is osteotomized obliquely, using chisel, at the posterior third, and posterior fragment drawn down to new position and transfixed to anterior portion with long nail driven in from point of heel through skin. The foot is fixed in plaster in corrected position of plantar flexion. One case is reported with good results although the foot appeared foreshortened.

Sciatic Pain and its Relief by Operations on Muscles and Fascia. Freiberg, Albert H. *Archives of Surgery*, 34, 2 *February* 1937.

From a large number of conditions causing sciatic pain, Freiberg selects the type of case which presents a problem acutely pressing for solution because of its chronicity and the desperate state of mind and morale that the patients are plunged into. He draws a distinction between Lasegue's sign and simple straight leg raising. He feels that the latter indicates spasm or contracture of the hamstring muscles and is often present in association with lesions of lumbar portion of the spine. He does not hold with most writers that Lasegue's sign is produced by stretching of the sciatic nerve. He believes it is a much more complicated procedure though not clearly understood. He does, however, believe that a positive sign is indicative of sciatic neuralgia. In every instance of sciatic neuralgia, he has been able to relieve, though on occasions only temporarily, the pain by means of traction on the extremities with the hip slightly flexed and in abduction of from 15 to 20 degrees. This, according to Freiberg, appeared to point to a muscular element as causal agent. He devoted considerable space to the anatomic relationship of the pyriformis muscle and points out that not even the anthrapoid ape has an anatomic arrangement of the sciatic field similar to that of man. Freiberg states that the pyriformis muscle is constantly found to have a part of its origin from the capsule of the sacroiliac joint and is the only muscle which bridges that joint. It is found always in extremely close relationship with the sciatic nerve where there is also a rich vascular plexus coming from the inferior gluteal vessels. With pressure in this region, passive hyperemia of the sheath of the trunk of the sciatic nerve is clearly made possible. In dealing with treatment of this condition Freiberg believes that the type of sciatic neuralgia which is relieved by traction and which recurs when traction is discontinued, lends itself readily to sectioning of the pyriformis muscle. Occasionally it was necessary to section this muscle on both sides for complete relief. He reports two cases in which the iliotibial band was incised on the side of the sciatic pain without relief. Following Ober's operation, without relief, sectioning of the pyriformis muscle brought complete relief. Freiberg draws an analogy between the pain of sciatic distribution and pain in the case of a cervical rib. In the latter, sectioning of the scalenus-anticus muscle brings relief so why not sectioning of the pyriformis muscle which acts in the same manner in cases of sciatic neuralgia.

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Paraffin Dressings for Transplanted Grafts. *Trueblood, Donald V. West. Jour. of Surg. Obstetric and Gyn. October* 1936.

In discussing the immediate after-dressings subsequent to skin grafting, Trueblood suggests the use of paraffin sprayed on with an atomizer. Accord to his report, this provides all necessary conditions for a satisfactory dressing. Just enough pressure is applied to keep the grafts firmly in apposition with the raw surface but not too firmly so that there is interference with the capillary circulation. The dressing will not shift or dislodge the grafts. This is accomplished by having the paraffin overlap the normal skin margins for about 1 inch on either side. The coating of paraffin is sprayed on for a depth of approximately 3 mm. completely covering the entire graft. Gauze is placed on top with adhesive strips holding the gauze in place. The area from which the skin was removed is also sprayed with paraffin and dressed in a similar manner. This type of dressing causes no pain or bleeding. Subsequent dressings are begun on the 3rd and 4th days over both areas and repeated daily thereafter until healing has been completed. Accumulation of lymph under the paraffin may be quite profuse, according to Trueblood's report, at the time of the first dressing but it becomes less and less abundant as new epithelium covers the raw surfaces.

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SUMMER DIARRHEA IN BABIES

Casec (calcium caeinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfulls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfulls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company, Evansville, Indiana.

• Quarto Notes •

AMERICAN MEDICINE, EXPERT TESTIMONY OUT OF COURT

A Review by George Blumer, M.D.
Clinical Professor of Medicine
Yale University School of Medicine
Member Commission on Medical Education (1925-32)

Issued by the American Foundation. New York, 1937

This unusual and interesting document is based on the views of physicians from all parts of the United States; general practitioners, surgeons, educators, hospital and public health officials, and various kinds of specialists. These views were not elicited by the time-honored and somewhat shop-worn questionnaire method, but are spontaneous outpourings in answer to a single query, namely, whether the individuals approached felt that any radical change in the present system of medical care was indicated. The resulting replies were, as might be expected, variable in their viewpoint and wide in their range. It has been the work of the Editor to classify, systematize and clarify the replies and this, a truly Herculean task, has been admirably accomplished. As a result the whole field of medical effort is considered under various headings. Such questions as the availability of adequate medical care, the general principles which should underlie the organization of medical care, medical education, specialization, group practice, the role of the hospital, public health organization, state, county and community plans for providing medical service, state medicine, health insurance and limited state medicine and private practice, are presented in the form of comments from the various contributing physicians with illuminating comments by the Editor.

It is difficult if not impossible to write a satisfactory critical review of a document of this sort because of its nature. It is not like a work written by a single author, whose views would presumably be consistent throughout the book. Being the contribution of a large number of individuals the opinions expressed regarding the various phases of American medicine differ to a very marked degree. Furthermore, the fact that the Editor does not attempt to make any definite recommendations adds to the difficulty of criticism, so that at best a review of this work must be more or less descriptive, and the reviewer must of necessity pick out for comment certain matters which appear to be important. We will therefore briefly discuss the work section by section.

The first chapter raises the question as to whether adequate medical care is now generally available. The chief point that it brings out is that an answer to this question is extremely difficult because we have no accepted standard of adequate medical care and that even the question of availability needs interpretation. One gathers from the material in this chapter that there is fairly substantial agreement that part of the population does not receive adequate medical care, partly because they themselves are not particularly interested in receiving it, partly because of its cost, especially in the more complicated diseases, and partly because the medical profession itself is not sufficiently well trained to furnish such medical care. This section further emphasizes the point that the medical profession has not yet been sufficiently "sold" on the idea that prevention rather than cure is the final aim of medical science.

The second chapter deals with the general principles which the medical men who contributed to the work believe should underlie the organization of medical care. It is pointed out that it is not possible to separate the problem of medical care from the general economic problem, and that many people who lack adequate medical care lack also adequate anything. The report points out that it is necessary to define the objective of medical science and practice, and suggests that this is not merely the care of the sick but also the promotion of positive health for the entire population. The question is raised as to the responsibility of the individual for his own health and the bearing which unemployment and lack of a living wage has upon this question. The report points to the present extent of quackery and the use of nostrums as an indication that education of the public is a vital prerequisite to the providing of adequate medical care. Furthermore, it is indicated that inasmuch as three parties are concerned in the problem, namely, the medical profession, the public, and the Government, it will be necessary for representatives of each group to confer on the matter and arrive at a conclusion as to the responsibility of each, particularly the responsibility of the Government. There is general agreement that the principle, that the individual should pay for medical care so far as his ability goes, is sound. There is discussion of the importance of the doctor-patient relation in its bearing on the competency of care. There is also a discussion of the desirability of changing the type of medical care by evolution or by revolution, and finally, an indication that the social economists of the past have been too much concerned with the cost and distribution of medical service and not sufficiently concerned with its quality.

The third chapter discusses medical education at considerable length, largely because of the opinion expressed by many of the contributors to the volume that improvement in the training of physicians is a fundamental requirement if medical care in general is to be bettered. There is a good deal of discussion of interest to the medical educator which can best be appreciated by reading the report itself, but the scope of a review like this does not permit of an extended consideration of this matter.

Chapter four discusses specialization and points out that there is a very definite feeling among contributors to the report that there are too many poor specialists and not enough good ones. The whole question of the certification of specialists and the manner in which this may be brought about is discussed.

Chapter five deals with group practice in the medical sense, i.e., the practice of medicine by groups of physicians. It indicates that there is little disagreement as to the necessity for the study of obscure cases by groups of individuals, but that formal group practice is not necessarily the only practical solution to this problem. It is suggested that the closer organization of hospital staffs and the develop-

ment of group functioning among those staffs may be the possible answer to this type of work in the future.

Chapter six discusses the place of the hospital in medical practice and education, and points out the increasing importance which the hospital has assumed in medical affairs in recent years. It calls attention to the influence of hospital work in a given community on the quality of medical practice and discusses the burning hospital question of the day, namely, hospital finance at a period when donations from private individuals have almost disappeared and most hospitals are financially in the red. Two solutions of this difficulty are discussed: (1) hospital insurance, and (2) Government assistance to hospitals for the care of their indigent patients.

Chapter seven deals with public health organization and contains a good deal of discussion on the present and future relationship between public health organizations and private practitioners. It stresses the disappearing line of demarcation between preventive medicine and curative medicine and indicates the necessity for more extended cooperative effort on the part of the public health authorities working with the private practitioners. Attention is called to the uninspiring character of much of the teaching of Public Health in the medical schools of the present, to the necessity for better training of the medical student in public health work and to the importance of a better articulation between the teaching of this subject and the curriculum in general.

Chapter eight deals with state, county, and community plans for providing medical service, most of which have arisen during the period of depression to meet the needs of the indigent and low income groups. The discussion indicates that many of these plans are inadequately developed and it is pointed out that much of the discussion of the financing of such plans overlooks the fact that many of the people concerned in them are unable to pay anything at all.

Chapter nine deals with state medicine, i.e., the compensation and control of all physicians by the state. There is a discussion pro and con on this subject and a brief statement as to the Swedish plan.

Chapter ten deals with health insurance, and as might be expected, the subject gives rise to views which vary greatly. One group strongly favors health insurance, another group just as strongly opposes it. This chapter discusses the question of workmen's compensation, hospital insurance, voluntary insurance, compulsory insurance, contract practice and industrial group medicine.

Chapter eleven deals with limited state medicine and private practice. Many of the contributors to this chapter seem to think that increased participation of the Government in medical affairs is inevitable and desirable. There is an expression of the view that the development of public health services,— federal, state and local,— is likely to lead to the solution of some of the present problems in medicine. The necessity for cooperation between state medicine and private practice is emphasized on the ground that neither can reach its ultimate development without the help of the other. There is a summary of a large body of opinion which regards the medical care of the indigent as logically a direct charge upon tax funds and suggests the principle of federal grants-in-aid as the best method of solving this problem on a country-wide basis. The suggestion of a Federal Department of Health is frequently made.

The work concludes with four appendices. The first gives the substance of the letters of inquiry to the doctors. The second contains a statement of the provisions established by the Certifying Bordsa in the specialties. The third is a list of industrial Medical Services approved by the American College of Surgeons. The fourth contains the list of physicians who contributed to the inquiry.

It is difficult to pick out the high lights in a report so lengthy and so replete with important facts, but the following considerations seem important to the reviewer:

(1) That the health of all groups of the population is a direct concern of the Government, and that national public health policy should take this into account, especially in connection with its work in preventive medicine.

(2) That adequate care of the medically indigent cannot be met from local tax funds alone, and that the cost of this care will probably have to be met by a combination of local, state, and federal funds.

(3) That in view of the hospital situation as it exists at present it will be necessary to remunerate the hospitals for the care of the indigent and that this will probably involve contributions from the tax funds of the locality, the state, and the Federal Government.

(4) That on account of the great expense of the complex diagnostic procedures which are necessary in the modern study of disease it will be necessary to assist individuals in the low income group to secure laboratory services. This can only be done by furnishing financial aid from local, state, and Federal tax funds to state or other laboratories equipped to furnish such service.

(5) That Health Insurance along the lines now in vogue in many European countries has many drawbacks and is at best only a partial answer to the problem. Indeed this type of Health Insurance entirely fails to provide for one class urgently needing adequate medical care, namely, the indigent.

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ROENTGEN INTERPRETATION

By George W. Holmes, M.D.
Clinical Professor of Roentgenology
Harvard Medical School
and Howard E. Ruggles, M.D.
Clinical Professor of Roentgenology
University of California Medical School

Fifth edition, thoroughly revised, published 1936.
Octavo, 356 pages, illustrated with 243 engravings.
Cloth, $5.00. Philadelphia: Lea & Febiger

A review of this book appeared in the February issue of the Journal. Through an oversight the name of the publisher and the price of the book were omitted. (Ed.)

OPERATIVE SURGERY

J. Shelton Horsley, M.D., L.L.D., F.A.C.S.
Attending Surgeon
St. Elizabeth's Hospital, Richmond, Va.
and Isaac A. Bigger, M.D.
Professor of Surgery, Medical College of Virginia
Surgeon-in-Chief, Medical College of Virginia Hospitals, Richmond, Va.

4th Edition — 2 vols. — Price $15.00
St. Louis — C. V. Mosby Co. — 1937

To those who are familiar with previous editions of this work, the fourth edition presents many new features. Two volumes replace the one volume third edition printed in 1928 and in its preparation Dr. Horsley has been assisted by several of his associates at the Medical College of Virginia.

Dr. Bigger has, in addition to re-writing the chapter on herniae, presented the more recent operative procedures on the lungs, heart and pericardium, oesophagus and sympathetic nervous system — which have received so much attention of surgeons during the past decade. The same author has likewise written the chapters on the surgery of the head and neck, breast and extremities with special emphasis on the problems and procedures encountered in malignant disease in these areas.

The field of plastic surgery has been reviewed by Dr. Horsley, Jr; Dr. Faulkner wrote the chapters on orthopedic surgery; while those on genito-urinary and brain and spinal cord are presented by Drs. Dodson and Coleman.

The senior author has covered the fields of blood vessel and abdominal surgery in addition to chapters on surgical principles, drainage, pre- and post-operative care, complications, intravenous therapy and an excellent outline on the causes of cicatrical contraction continuing, as in previous editions, to emphasize the importance of anatomical and physiological considerations.

No gynecological procedures are included in the work.

A very complete index is appended in addition to a bibliography at the end of each chapter. The illustrations are excellent and adequate.

The two volumes in no way include the entire field of surgical procedures — but rather represent those operations which have proven satisfactory to the authors — or, in a few instances seem to them to have a rational basis.

Brevity and clearness make the work easy and interesting reading and a welcome addition to the surgeon's library.

E. M. Andrews

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CLINICAL ROENTGENOLOGY OF THE CARDIOVASCULAR SYSTEM

by Hugo Roesler, M.D.
Associate Professor of Roentgenology and Cardiologist, Department of Medicine, Temple University School of Medicine

Price $7.50
C. C. Thomas, Springfield, Ill,. 1937

The rising wave of interest and activity during recent years in the roentgenology of the cardio-vascular system has created an acute need for a comprehensive and authoritative reference book which would present in readily available form the best thought and opinion on this esoteric subject. That need has now been adequately filled by this thoroughly practical monograph from the hand of an acknowledged master.

The author has attempted, from the roentgenological point of view, to integrate for the cardio-vascular system the anatomical, physiological and pathological features, the experimental problems, and the clinical applications. And he has succeeded admirably.

The opening section, describing and evaluating the many techniques in current use, will be of interest not only to the roentgenologist but also to the specialist in heart and peripheral vascular disease. The chapters dealing with the anatomy, roentgenology, measurements, and dynamics of the normal cardiovascular system bring together a huge volume of data and correlate it with the fundamental conceptions that are essential to the most intelligent understanding of the problems involved. The extensive technical treatment of "Measurement" emphasizes, among other lessons, the wide variations of the normal and warns against the common errors in interpretation of heart dimensions. The author's idealism and his own lofty standards are apparent from his insistence upon technical conditions that are as yet largely unattainable to most X-ray laboratories. While these chapters do not offer easy reading, every roentgenologist and cardiologist should familiarize himself with this material. The internist will find delightful and informative reading in the eight chapters devoted to the general consideration of the major cardiovascular diseases and their roentgenographic aspects. Outstanding chapters are "Congenital Cardiovascular Malformations" and "Peripheral Vascular Disease".

The text is profusely illustrated with figures, photographs of models, and reproductions of reontgenograms that really illustrate and teach. The general practitioner may not desire to read the book through, but he can learn much from simply a perusal of the many illustrations with their voluminous and helpful footnotes.

A generous bibliography of relevant references follows each chapter. Unfortunately the author did not find it feasible to correlate particular statements in the text with specific references. There is a good index.

Arthur J. Geiger

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PHYSICAL THERAPEUTIC METHODS OF OTOLARYNGOLOGY

By Abraham R. Hollender

P. 442. $5.00
St. Louis, C. V. Mosby Company, 1937

Treatises on phsyiotherapy have most often been written by physicians who are primarily physiotherapeutists, but here is a volume edited by specialists in otolaryngology and they approach the subject from the point of those especially trained in otolaryngology and explain the value of physiotherapy in the treatment of diseases of the ear, nose, and throat.

The authors have devoted considerable space to the discussion of physics, and present in concise and readable fashion much information which is not common to most physicians and which should certainly be the foundation for any attempt at the application of such methods of treatment.

Books on this subject are characteristically filled with enthusiasm; indeed enthusiasm and zeal seem to be fixed characteristics of all physiotherapeutists. The authors of this book, however, have frequently exhibited a conservatism which is commendable. It seems unfortunate that it is always necessary in books on physiotherapy to republish so many illustrations of specially patented apparatus and include the name of the manufacturer so that the reader cannot help but feel he is perusing the catalogues of these merchants.

Doctor Hollender and his collaborators have included a complete bibliography at the end of each chapter which should prove to be valuable; and on the whole, the book is a fair and sensible guide.

—Creighton Barker

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CATARACT, ITS PREVENTIVE AND MEDICAL TREATMENT

A. Edward Davis, M.D., A.M.
Consultant Ophthalmic Surgeon, New York Post-Graduate Medical School and Hospital (Columbia University)

P. 161 — Price $3.00
Philadelphia — F. A. Davis Co. — 1937

The author has taken quite freely excerpts of others in compilation of his book, accepting quotations of others which will help to prove his premise and rejecting other statements of the same authors which do not help his premise — which is that senile cataract is the result of faulty metabolism principally and can be definitely arrested or cured in about seventy-five or eighty per cent of cases by medical treatment. However, although his assertion has not been accepted by the majority of prominent ophthalmologists of the United States, the author is very dogmatic in his assertions and even goes so far as to indicate that other oculists who do not use medical treatment for senile cataracts are taking a laissez-faire attitude or are deliberately seeking more operative cases. His attitude is expressed by the following sentence in the last chapter; "I ask shall it be necessary to pass mandatory laws, as in the case of ophthalmia neonatorum, to compel ophthalmologists to carry out such treatment?"

The arrangement of the book is quite good. There is a chapter by S. Judd Lewis, on Spectroscopy, which is rather beside the point, and another by J. Burdon Cooper, to prove that errors of refraction are a cause of cataract in which the diagrams are practically illegible. Twenty pages are spent on the distructions in the dietary treatment of cataract. and the management of mild diabetes by diet alone. The author mentions some of the other methods of medical treatment for cataract. He recommends lens antigen hypodermically every other day with increasing doses for four months. Small doses of potassium iodide by mouth are also given, and then dionin after the injections.

Reports of successful results of his own are given and also those of other oculists. There was no experimental work.

Arthur C. Unsworth

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SURGICAL PATHOLOGY OF THE THYROID GLAND

Arthur E. Hertzler, M.D.
Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas
Professor of Surgery, University of Kansas

Cloth. Pp. 298, with 238 illustrations
Philadelphia — J. B. Lippincott Company — 1936

The author begins by pointing out the difficulty which has arisen in correlating the clinical and pathological findings; the similarity of the changes occurring in normal evolution and involution of the gland and pathological states; the close resemblance of the regressive stages of age and the changes of disease. The subject matter is discussed under the following headings according to the classification of the American Society for the study of Goitre: nontoxic diffuse, nontoxic nodular, toxic nodular, toxic diffuse, thyroiditis, myxedema, fetal adenomas, tumors, with added chapters on the cardiotoxic and the atypical toxic goitres. He details the changes occurring in normal glands from fetal life to senility in terms of fibrous tissue, acini and colloid following which there is an abstract discussion of the pathological changes occurring in each of these components generally and in detail under each class.

Essentially the book is a record of personal experiences based upon years of studying patients, removing their goitres, studying the glands macro- and microscopically, following them up and then combining the whole into a continued story. In this continued story is much food for thouhgt, many interesting ideas are developed and presented in a characteristic readible manner. Literary citations are few. The book is one of the author's series of monographs on surgical pathology. It is well organized and satisfactorily indexed.

J. R. Glazier

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THE INTIMATE SIDE OF A WOMAN'S LIFE

Leona W. Chalmers

P. 128. Price $1.50
New York Pioneer Publications — 1937

During the past year the women of this country spent millions of dollars in their quest for charm and beauty. Modern advertising has created much of this beauty consciousness particularly from the angle of Romance, which is woman's spice of life whether she be fourteen or forty. Mrs. Chalmers has presented beauty from a more fundamental view point, that which emanates from perfect bodily health, and internal, as well as external, cleanliness. She has dealt with her subject fully, but as simply as one woman would present it to another, fully cognizant of the great importance of the intimate problems of womanhood. Physicians might well recommend this excellent book to every woman patient, whether she be newly initiated into

the responsibilities of wifehood, or whether she be an older woman with daughters whom she must guide wisely. Would that a similar book were available which would as clearly direct a woman's emotional behavior, and offer a solution for the problems of her complex and intricate nervous system. Then we would have travelled a long way toward the evolution of that paragon, the Perfect Woman,— but to what avail? For where might be found her Perfect Mate, the Perfect Male?

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ENDOCRINOLOGY, CLINICAL APPLICATION AND TREATMENT

by August A. Werner, M.D., F.A.C.P.
Assistant Professor of Internal Medicine
St. Louis University School of Medicine
P. 637 — Price $8.50
Lea & Febiger. Phila. 1937

It is satisfactory to find such a comprehensive treatise on established Endocrinology in one easily handled volume.

The first chapter summarizes important points concerning the anatomy and physiology of the autonomic nervous system, a knowledge of which is necessary in understanding the symptomatology of endocrine disorders.

The second chapter reviews calorimetry. It fails to mention the prepubertal rise and the racial variations in metabolic rate. No warning is given in this chapter of the possible misinterpretations of a rise in metabolic rate in the latter half of pregnancy, though this rise is cited in a later portion of the book,— under cretinism.

A short chapter on "Glands in General", and another listing forty hormones, are followed by eight chapters on individual glands, the longest dealing with the gonads.

There are many excellent illustrations and tables. Types of build and variations in sexual development are pictured, as well as several patients who seem of ordinary proportions except that they are obese. Useful tables show the normal age of appearance of bone centers and of epiphyseal closure, normal measurements in relation to age, and the effect of normal and abnormal pituitary-gonad function on skeletal growth These tables alone make it a valuable reference book.

The types described under hypo- and hyper- function of the pituitary and gonads are the usual ones, but the discussion of posterior pituitary obesity is not entirely convincing. Many of the cases described seem to be ordinary, general obese persons. Though such patients state that they eat meagerly, analysis of their actual diets for several days ordinarily shows caloric intake above each individual's calculated needs, or gross imbalance. When, by means of a properly balanced diet, roughly 500-1000 calories below their daily need, these patients feel better satisfied than previously, and without medication or other changes in their habits, lose steadily 1 - 2 pounds a week, it seems scarcely justifiable to call them cases of endocrine imbalance.

Dr. Werner, agreeing with general opinion expressed in recent periodical articles, considers oral pituitary therapy ineffective. In hypo-ovarian conditions no mention is made of the control of dosage in individual cases by means of vaginal smears, though in practice this has proved particularly useful because of the wide variations in the amounts needed of expensive preparations.

In considering the thyroid, adenomatous goitre with hyperthy-roidism and exophthalmic goitre are described as entirely separate diseases. In some clinics it is thought that whether a patient reacts to hyperthyroidism with the typical Grave's syndrome or not, depends on his constitutional type, and that nodular goitres differ from those showing diffuse hyperplasia because they have been the seat of repeated uneven hypertrophy and involution. No mention is made of the recent work on exophthalmos by Marine. Creatine metabolism is alluded to in connection with hypothyroidism, but there is no mention of the creatine tolerance test as an aid in diagnosing hypo- and hyperthyroid states, and in following the effects of therapy. The usual warning is expressed against iodine therapy in adenoma, whereas some physicians consider this danger to be remote, provided small doses of weaker preparations, such as the syrup of hydriodic acid, are prescribed.

The book seems to be the work of a widely experienced clinician, and is so readable that it provides an easy means for the general practitioner to review the well established facts of endocrinology. Some important recent advances in diagnosis and treatment are omitted, possibly because the author considers them not yet confirmed.

Sophie A. Root

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MANAGEMENT OF OBSTETRIC DIFFICULTIES

Paul Titus, M.D.
Obstetrician and Gynecologist
to St. Margaret Memorial Hospital, Pittsburgh.
Pp. 879 with 314 illustrations including 4 color plates.
St. Louis. C. V. Mosby Co. 1937.

The practice of obstetrics has changed to such an extent in the last two decades that the old conventional type of text book no longer adequately supplies the entire need. To cull from current journals the good and add this to the fundamental principals which have survived today is a large task. The writer of this book has prepared for the general practitioner a valuable source of reference and for the specialist an up to date compendium presenting the outstanding accepted opinions. In case of controversy the author frankly states his own views.

There are several chapters which are particularly striking in their completeness and in their appeal to the student of modern obstetrics. In particular, the chapters on sterility, on the present status of hormones and vitamines in obstetrics, on the induction of labor and on obstetric analgesia and anaesthesia are to be noted. The author's own views on the susceptible dates for abortion and the estimation of the dates of full term labor, on the treatment of ectopic pregnancy and the treatment of toxemias are detailed and striking.

Intermingled with these excellent features are many pages which impress one as superfluous in this type of book. A catalogue of minor details reminds us that it is a text book and, although the author expresses his intention of omitting the normal fundamentals and refraining from historical excursions, at times, nevertheless, in many

places he succumbs. True, this adds entertainment for all but the harassed, busy general practitioner.

We commend Dr. Titus' work to every one practicing obstetrics since within its pages will be found something helpful to all.

The Editor

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SYNOPSIS OF ANO-RECTAL DISEASES

By Louis J. Hirschman, M.D., F. A. C. S.
Ex-Vice President, A. M. A.; Ex-Chairman, Section on Gastroenterology and Proctology, A. M. A.; Ex-President American Proctologic Society; Professor Proctology, Wayne University; Fellow; Honorary; Royal Society of Medicine; Extra-Mural Lecturer on Proctology, Post-Graduate's School, University of Michigan; Proctologist, Harper, Charles Godwin Jennings, and Woman's Hospital; Consulting Proctologist Detroit City Receiving, Evangelical Deaconess, Wayne County Hospitals, etc., Detroit.

Cloth — Price $0.00, Pp. 288, with 180 illustrations
St. Louis: The C. V. Mosby Company, 1937

A synopsis designed "to guide those who desire to treat that large proportion of ano-rectal diseases which can be treated safely and successfully outside of the field of the limited specialist." Simply and effectively written, the book is presented in the conventional form of most medical synopses. Diagrams, colored plates, photographs and illustrations are interspersed with the text in great enough frequency to clarify the readers impression of the more complicated descriptive passages.

Beginning with a brief anatomical discussion, there follows a splendid chapter on symptomatology and its relative significance to pathology of the anus and rectum. The details of examination of the patient, preferential anaesthesia for the various procedures, and equipment for office use follow in consecutive chapters. The author makes no attempt to enter a discussion of the various operative procedures for carcinoma of the rectum. Instead he offers aid in the diagnosis of the disease, and directs the surgeon to more voluminous texts for minutae on procedure.

A chapter is devoted to Constipation and Obstipation, which considers carefully not only the actual pathology of its causation, but the relative effects of functional and neurotic disorders on this type of patient. The consideration of treating the patient as an entity rather than as one having only a pathological anus or rectum is cleverly handled. Presentation of therapy for these conditions is done in a manner that is helpful, and in some instances novel to many of the physicians and surgeons who are faced with this common and frequently trying complaint.

Pruritis Ani because of its host of causative agents must remain the most variable disease of the region. Attention is called to the multiplicity of factors producing it, and numerous suggestions of the author, and of leading men in this field for its treatment are given, extending from favorite prescriptions to a clearly detailed, modified Ball operation evolved by the author. After-treatment here, as in other procedures described, adds great value to the work.

Abscess, fistula, fissure, haemorrhoids, polyposis, papillitis, proctitis, sigmoiditis, stricture, foreign bodies, prolapse and many lesser conditions are given careful attention from the point of view of therapy and diagnosis, and the author has incorporated throughout his book much of the interesting work that has been done recently in this field.

There is a simple, workable index, and a brief Index of Symptomatology that is flexible enough to be highly effective. The book is readable throughout, and while justly fulfilling its expressed purpose to the profession as a whole, it contains much that will interest those who practice within "the field of the limited specialist."

F. S. Ellison

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OPHTHALMOSCOPY, RETINOSCOPY AND REFRACTION WITH A NEW CHAPTER ON ORTHOPTICS

W. A. FISHER, M.D., F.A.C.S.
Professor of Opthalmology
Chicago Eye, Ear, Nose and Throat College
4th Edition revised. Price $2.00
Chicago. H. G. Adair Printing Co. 1937

In this book Fisher aims to show an easy way to teach the "Medical practitioner and students the practical use of the ophthalmoscope and retinoscope, with easy application of methods of study to the detection of disease of the interior of the eye, and for the fitting of glasses when they are indicated."

This is the Fourth Edition or the rewriting of an obsolete book with a new chapter on Orthoptics in a very poor attempt to bring it up to date.

The chapter on Ophthalmoscopy, Schematic Eye, Diseases of the Retina, Choroid, Pptic Nerve are practically identical with the previous editions. The plates are extremely poor and with such available plates as are found in the Wilmer Atlas, Moore's Medical Ophthalmology, Parson's Textbook of Ophthalmology or the new Troncoso with clinical course, pathology and treatment written with the illustrations, there is hardly a place for the Fourth Edition by Fisher.

The chapter on Perimeter consisting of seven pages might be of value to the student or medical practionerit. The author lays great stress on the ability to determine the refraction of patients with the opthalmoscope which is probably much less accurate than estimating the Blood Pressure by palpating the radial pulse.

The chapter on Optical Principles, Test Type, Lenses, Refraction and cycloplegics is again identical ro earlier editions and a very poor comparison to Cowan's optics or Obrig's recent book on Optics.

A full chapter, seven pages, is devoted to measurement of lenses, prescription writing, transposition and frame fitting — the latter being definitely outlawed by the Section of Ophthalmology of the American Medical Association and placed on the same basis as "Fee Splitting."

The last chapter on Orthoptics is a very well worth while addition to this 200 page book. This chapter is well written, giving a good summary of the subject with an up to date bibliography and this is the only chapter of value to the Oculist, Medical Practitioner or Student — and orthoptics has no place of value to the Medical Practitioner or Student.

M. F. Little

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NEW HAVEN: David R. Lyman, M.D., Gaylord Farm Sanatorium, Wallingford.
NEW LONDON: Robert R. Agnew, M.D., 296 Washington Street, Norwich.
TOLLAND: Roy C. Ferguson, M.D., 57 Union Street, Rockville.
WINDHAM: Joseph A. Girouard, M.D., 19 Union Street, Willimantic.
The President of the Society.
The Administrative Secretary of the Society.
The Committee on National Legislation.

COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION
(THE CONNECTICUT MEDICAL EXAMINING BOARD)
(Member elected annually for a term of five years)

1932 Charles J. Bartlett, M.D., 183 Bishop Street, New Haven, *President.*
1933 Thomas P. Murdock, M.D., 147 West Main Street, Meriden, *Secretary.*
1934 Daniel C. Patterson, M.D., 881 Lafayette Street, Bridgeport.
1935 George M. Smith, M.D., Pine Orchard, Branford.
1936 John C. Rowley, M.D., 179 Allyn Street, Hartford.

COMMITTEE ON HONORARY MEMBERS AND DEGREES
(Elected annually)

Ralph A. McDonnell, M.D., 158 Whitney Avenue, New Haven, *Chairman.*
Walter R. Steiner, M.D., 646 Asylum Avenue, Hartford.
Thomas P. Murdock, M.D., 147 West Main Street, Meriden.

COMMITTEES ON MEDICAL ETHICS AND DEPORTMENT

The Chairman of the County Medical Associations' Committees:
FAIRFIELD: D. Chester Brown, M.D., 330 Main Street, Danbury, *Chairman.*
HARTFORD: Orin R. Witter, M.D., 179 Allyn Street, Hartford.
LITCHFIELD: Harry B. Hanchett, M.D., 55 Main Street, Torrington.
MIDDLESEX: Frank K. Hallock, M.D., Cromwell Hall, Cromwell.
NEW HAVEN: Charles J. Bartlett, M.D., 183 Bishop Street, New Haven.
NEW LONDON: Harold W. Wellington, M.D., 309 State Street, New London.
TOLLAND: Elliott H. Metcalf, M.D., 50 Elm Street, Rockville.
WINDHAM: Robert C. Paine, M.D., Thompson.
The President of the Society.
The Administrative Secretary of the Society, *Recorder.*

SPECIAL COMMITTEES

Committee on National Legislation
(Elected annually)

D. Chester Brown, M.D., 330 Main Street, Danbury, *Chairman.*
Henry N. Costello, M.D., 179 Allyn Street, Hartford.
The Chairman of the Committee on Public Policy and Legislation.
The Legislative Secretary of the Society.

Committee on Hospitals
(Two members elected annually for a term of three years)

1936 Harry B. Hanchett, M.D., 55 Main Street, Torrington, *Chairman.*
1936 Wilmar M. Allen, M.D., 20 South Hudson Street, Hartford.
1934 H. Bertram Lambert, M.D., 144 Golden Hill Street, Bridgeport.
1934 Frederick N. Sperry, M.D., 85 Whitney Avenue, New Haven.
1935 Harold W. Wellington, M.D., 309 State Street, New London.
1935 Edward J. Ottenheimer, M.D., 29 North Street, Willimantic.

Committee on Public Health
(Elected annually)

Joseph I. Linde, M.D., City Hall, New Haven, *Chairman.*
Louis M. Allyn, M.D., 22 Library Street, Mystic.
Howard W. Brayton, M.D., 179 Allyn Street, Hartford
Ernest J. Caulfield, M.D., 683 Asylum Avenue, Hartford.
A. Nowell Creadick, M.D., 79 Trumbull Street, New Haven.
John S. Dye, M.D., 111 West Main Street, Waterbury.
Joseph H. Howard, M.D., 144 Golden Hill Street, Bridgeport.
Louis O. LaBella, M.D., 612 Main Street, Middletown.
James R. Miller, M.D., 179 Allyn Street, Hartford.
Oliver L. Stringfield, M.D., 58 South Street, Stamford
W. Bradford Walker, M.D., Cornwall.

Committee on Publication
(Elected annually)

Charles J. Bartlett, M.D., 183 Bishop Street, New Haven, *Chairman.*
William H. Morriss, M.D., Gaylord Farm Sanatorium, Wallingford.
The Secretary of the Society on Scientific Work.

Committee on the Clinical Congress
(For the term: 1 October 1936 to 30 September 1937)

Stanhope Bayne-Jones, M.D., 333 Cedar Street, New Haven, *Chairman.*
Herbert Thoms, M.D., 789 Howard Avenue, New Haven, *Secretary.*
Charles E. Sanford, M.D., 265 Church Street, New Haven, *Treasurer.*
The President of the Society.
The Chairman of the Council.
The Administrative Secretary of the Society.
The Secretary of the Society on Scientific Work.
The Secretaries of the component County Medical Associations:
Fairfield: R. Harold Lockhart, M.D., 144 Golden Hill Street, Bridgeport.
Hartford: Stanley B. Weld, M.D., 179 Allyn Street, Hartford.
Litchfield: W. Bradford Walker, M.D., Cornwall.
Middlesex: G. Mansfield Craig, M.D., 119 Main Street, Middletown.
New Haven: Ralph E. McDonnell, M.D., 158 Whitney Avenue, New Haven.
New London: George H. Gildersleeve, M.D., 310 Main Street, Norwich.
Tolland: Francis H. Burke, M.D., 27 Park Street, Rockville.
Windham: Cecil R. Garcin, M.D., 7 Broad Street, Danielson.
Such other Members as the Committee shall appoint.

Committee on Cooperation with Yale University School of Medicine
(Elected annually by the Council)

The Chairman of the Council, *Chairman.*
The President of the Committee on Medical Examination and Medical Education.
The Chairman of the Committee on Public Policy and Legislation.
Members-at-large: Ralph A. McDonnell, M.D., 158 Whitney Avenue, New Haven; Daniel Sullivan, M.D., 58 Huntington Street, New London.

Committee on Tumor Study
(Elected annually)

Charles L. Larkin, M.D., 101 North Main Street, Waterbury, *Chairman.*
Ralph E. Kendall, M.D., Hartford Hospital, Hartford.
Samuel C. Harvey, M.D., 789 Howard Avenue, New Haven.
Philip G. McLellan, M.D., 683 Asylum Avenue, Hartford.
H. LeBaron Peters, M.D., 763 Park Avenue, Bridgeport.
Daniel Sullivan, M.D., 58 Huntington Street, New London.
Milton C. Winternitz, M.D., 330 Cedar Street, New Haven.
The State Commissioner of Health.

Committee on Narcotic Drug Addiction
(Elected annually)

Arthur Bliss Dayton, M.D., 129 Whitney Avenue, New Haven, *Chairman.*
John H. Foster, M.D., 103 North Main Street, Waterbury.
Alfred Labensky, M.D., 85 Federal Street, New London.
Nathaniel Selleck, M.D., 215 Main Street, Danbury.

State Committee on Workmen's Compensation
The Council.
The Chairmen of the five District Committees.

First District Committee on Workmen's Compensation

George W. Dunn, M.D., 55 West Main Street, New Britain, *Chairman.*
Benedict B. Landry, M.D., 50 Farmington Avenue, Hartford.
D. C. Y. Moore, M.D., 689 Main Street, South Manchester.

Benedict N. Whipple, M.D., 45 North Main Street, Bristol.
Thacher W. Worthen, M.D., 179 Allyn Street, Hartford.

Second District Committee on Workmen's Compensation

Joseph A. Girouard, M.D., 19 Union Street, Willimantic, *Chairman.*
John P. Hanley, M.D., 15 Church Street, Stafford Springs.
F. Erwin Tracy, M.D., Durham.
Lewis Sears, M.D., 257 Main Street, Norwich.
Harold W. Wellington, M.D., 309 State Street, New London.

Third District Committee on Workmen's Compensation

Francis H. Reilly, M.D., 230 Church Street, New Haven, *Chairman.*
Creighton Barker, M.D., 129 Whitney Avenue, New Haven.
Edward W. Foster, M.D., 147 West Main Street, Meriden.
James D. McGaughey, M.D., 261 Center Street, Wallingford.
Paul W. Vestal, M.D., 79 Trumbull Street, New Haven.

Fourth District Committee on Workmen's Compensation

D. Chester Brown, M.D., 330 Main Street, Danbury, *Chairman.*
Daniel C. Patterson, M.D., 881 Lafayette Street, Bridgeport.
J. Howard Staub, M.D., 100 South Street, Stamford.
Edward J. Tracey, M.D., 637 West Avenue, Norwalk.
J. Leonard Vickers, M.D., 23 Maple Avenue, Greenwich.

Fifth District Committee on Workmen's Compensation

Michael J. Lawlor, M.D., 158 North Main Street, Waterbury, *Chairman.*
Harry B. Hanchett, M.D., 55 Main Street, Torrington.
Edward H. Kirschbaum, M.D., 20 Grove Street, Waterbury.
Maurice J. Reidy, M.D., 350 Main Street, Winsted.
Samuel B. Rentsch, M.D., 80 Elizabeth Street, Derby.

Committee on Medical Expert Testimony

Otto G. Wiedman, M.D., 179 Allyn Street, Hartford, *Chairman.*
Harold W. Wellington, M.D., 309 State Street, New London.
Paul W. Vestal, M.D., 79 Trumbull Street, New Haven.

Committee on Permanent Funds

Henry L. Swain, M.D., 195 Church Street, New Haven.
H. Gildersleeve Jarvis, M.D., 179 Allyn Street, Hartford.
The Treasurer of the Society.

Auditors

Henry L. Swain, M.D., 195 Church Street, New Haven.
H. Gildersleeve Jarvis, M.D., 179 Allyn Street, Hartford.

DELEGATES

Delegates to the American Medical Association

(One elected annually for a term of two years from 1 July)

1935 George Blumer, M.D., 158 Whitney Avenue, New Haven.
Alternate: Robert L. Rowley, M.D., 79 Elm Street, Hartford.
1936 Walter R. Steiner, M.D., 646 Asylum Avenue, Hartford.
Alternate: Samuel C. Harvey, M.D., 789 Howard Avenue, New Haven.

Delegates to State Societies

(Elected annually for a term of one year from 1 July)

To Maine:—Ralph A. McDonnell, M.D., 158 Whitney Avenue, New Haven; Alfred C. Henderson, M.D., 55 Glenbrook Road, Stamford.
To Massachusetts:—Philip G. McLellan, M.D., 683 Asylum Avenue, Hartford; Joseph A. LaPalme, M.D., 158 Main Street, Putnam.
To New Hampshire:—Clyde L. Deming, M.D., 789 Howard Avenue, New Haven; Charles Y. Bidgood, M.D., 179 Allyn Street, Hartford.
To Rhode Island—Creighton Barker, M.D., 129 Whitney Avenue, New Haven; Herbert Thoms, M.D., 789 Howard Avenue, New Haven.
To Vermont:—George Blumer, M.D., 158 Whitney Avenue, New Haven; Roy L. Leak, M.D., Connecticut State Hospital, Middletown.

Delegates to Special Societies

(Elected annually for a term of one year from 1 July)

To The Connecticut State Dental Association: Thacher W. Worthen, M.D., 179 Allyn Street, Hartford; Stanley B. Weld, M. D., 179 Allyn Street, Hartford; Ralph A. Richardson, M.D., 4 School Street, Bristol.
To The Connecticut State Hospital Association:—The Chairman of the Committee on Hospitals; Members of the Committee on Hospitals as the Chairman shall select.
To The Connecticut Pharmaceutical Association:—Arthur Bliss Dayton, M.D., 129 Whitney Avenue. New Haven.

HOUSE OF DELEGATES

COUNCILORS

Fairfield County

1936 JAMES DOUGLAS GOLD, M.D.
839 Myrtle Avenue, Bridgeport

Hartford County

1935 HENRY GILDERSLEEVE JARVIS, M.D.
38 Prospect Street, Hartford

Litchfield County

1936 HARRY BIGELOW HANCHETT, M.D.
55 Main Street, Torrington

Middlesex County

1935 ROY LEIGHTON LEAK, M.D.
Connecticut State Hospital, Middletown

New Haven County

1936 HENRY LAWRENCE SWAIN, M.D.
195 Church Street, New Haven

New London County
1935 CHARLES GARDINER BARNUM, M.D.
230 Thames Street, Groton

Tolland County
1936 CHARLES T. LaMOURE, M.D.
Mansfield State Training School and Hospital
Mansfield, Depot

Windham County
1935 ROBERT CHILD PAINE, M.D.
Thompson

ELECTED DELEGATES

Fairfield County
(Each elected for a term of two years)

1935 Frank H. Barnes, M.D., Dr. Barnes' Sanitarium, Stamford.
1936 D. Chester Brown, M.D., 330 Main Street, Danbury.
1936 Alfred C. Henderson, M. D., 55 Glenbrook Road, Stamford.
1935 Don J. Knowlton, M.D., 36 Mason Street, Greenwich.
1936 H. Bertram Lambert, M. D., 144 Golden Hill Street, Bridgeport.
1935 R. Harold Lockhart, M.D., 144 Golden Hill Street, Bridgeport, *County Secretary*.
1936 J. Stanley Nickum, M.D., 144 Golden Hill Street, Bridgeport.
1935 Bronislaw L. Smykowski, M.D., 405 Barnum Avenue, Bridgeport.
1936 William J. Tracey, M.D., 637 West Avenue, Norwalk.

Hartford County
(Officers and each elected for a term of three years)

Ralph A. Richardson, M.D., 4 School Street, Bristol, *County President*.
Maurice T. Root, M.D., 51 North Main Street, West Hartford, *County Vice-President*.
Stanley B. Weld, M.D., 179 Allyn Street, Hartford, *County Secretary*.
1935 David M. Caldwell, M.D., 935 Main Street, South Manchester.
1935 Samuel J. Chernaik, M.D., 300 Main Street, New Britain.
1935 David Gaberman, M.D., 179 Allyn Street, Hartford.
1935 Harvey B. Goddard, M.D., 970 Main Street, East Hartford.
1936 William R. Hanrahan, M.D., 157 Main Street, Bristol.
1934 Arthur B. Landry, M.D., 50 Farmington Avenue, Hartford.
1934 Benedict B. Landry, M.D., 50 Farmington Avenue, Hartford.
1936 Vincent F. Mendillo, M.D., 99 West Main Street, New Britain.
1936 D. C. Y. Moore, M.D., 689 Main Street, South Manchester.
1934 William T. Morrissey, M.D., 55 West Main Street, New Britain.
1935 Richard A. Outerson, M.D., 50 Farmington Avenue, Hartford.

Litchfield County
(Elected annually)

Harry B. Hanchett, M.D., 55 Main Street, Torrington.
W. Bradford Walker, M.D., Cornwall, *County Secretary*.

Middlesex County
(Elected annually)

Harry S. Frank, M.D., 516 Main Street, Middletown.
Julius H. Grower, M.D., 45 Main Street, Middletown.

New Haven County
(Elected annually)

Charles J. Bartlett, M.D., 183 Bishop Street, New Haven.
Stanhope Bayne-Jones, M.D., 333 Cedar Street, New Haven.
Patrick J. Brennan, M.D., 135 West Main Street, Waterbury.
Abe S. Brown, M.D., 58 Central Avenue, Waterbury.
William J. Dennehy, M.D., 1282 State Street, New Haven.
John S. Dye, M.D., 111 West Main Street, Waterbury, *County President*.
William J. H. Fischer, M.D., 3 Lafayette Street, Milford.
Cole B. Gibson, M.D., "Undercliff", Meriden.
Willis E. Hartshorn, M.D., 67 Trumbull Street, New Haven.
Carl W. Henze, M.D., 466 Orange Street, New Haven.
James D. McGaughey, M.D., 261 Center Street, Wallingford.
M. Heminway Merriman, M.D., 115 Prospect Street, Waterbury.
Louis H. Nahum, M.D., 1142 Chapel Street, New Haven.
Milo P. Rindge, M.D., Boston Street, Madison.

New London County
(Each elected for two years)

1935 Albert C. Freeman, M.D., 54 Broadway, Norwich.
1935 George H. Gildersleeve, M.D., 310 Main Street, Norwich, *County Secretary*.
1936 Isadore Hendel, M.D., 50 State Street, New London.
1936 Richard M. Starr, M.D., 45 Huntington Street, New London.

Tolland County
(Elected annually)

William L. Higgins, M.D., South Coventry.

Windham County
(Secretary and one elected for two years)

Cecil R. Garcin, M.D., 7 Broad Street, Danielson, *County Secretary*.
1936 Kenneth K. Kinney, M.D., 29 North Street, Willimantic.
1917 Richard P. Strong, Harvard Medical School, Boston, Mass.
1918 Harvey Cushing, 789 Howard Avenue, New Haven.
1921 Edward R. Baldwin, Saranac Lake, N. Y.
1929 William Snow Miller, Madison, Wis.
1936 Charles Franklin Craig, Tulane University of Louisiana School of Medicine, New Orleans, La.

ACTIVE MEMBERS

This roll is corrected to March 1, 1937.

Date preceding name indicates year of election to or reinstatement in the County Association.

Asterisk preceding name indicates membership in the American Medical Association is credited to another constituent association.

FAIRFIELD COUNTY

President, JOHN F. SHEA, M.D., 144 Golden Hill Street, Bridgeport.

Vice-President, J. HOWARD STAUB, M.D., 100 South Street, Stamford.

Secretary, R. HAROLD LOCKHART, M.D., 144 Golden Hill Street, Bridgeport.

Treasurer, CLIFTON C. TAYLOR, M.D., 881 Lafayette Street, Bridgeport.

Councilor, JAMES DOUGLAS GOLD, M.D., 839 Myrtle Avenue, Bridgeport.

Censors

(One elected annually for a term of three years)

1936 DANIEL P. GRIFFIN, M.D., 1278 East Main Street, Bridgeport, *Chairman.*

1934 HENRY K. W. KELLOGG, M.D., 725 West Avenue, Norwalk.

1935 ROBERT J. LYNCH, M.D., 144 Golden Hill Street, Bridgeport.

Committee on Public Policy and Legislation

(Appointed annually by the President)

GEORGE G. FAWCETT, M.D., 8 Washington Street, South Norwalk, *Chairman.*

BERKLEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

OLIVER L. STRINGFIELD, M.D., 58 South Street, Stamford.

Committee on Medical Ethics and Deportment

(Two appointed annually by the President for a term of four years)

1936 D. CHESTER BROWN, M.D., 330 Main Street, Danbury, *Chairman.*

1936 DANIEL C. PATTERSON, M.D., 881 Lafayette Street, Bridgeport.

1933 SAMUEL PIERSON, M.D., 61 Broad Street, Stamford.

1933 FRANCIS C. MCMAHON, M.D., 62 Suburban Avenue, Stamford.

1934 WILLIAM BURKE, M.D., 153 Mason Street, Greenwich.

1934 HENRY K. W. KELLOGG, M.D., 725 West Avenue, Norwalk.

1935 J. DOUGLAS GOLD, M.D., 839 Myrtle Avenue, Bridgeport.

1935 BERKLEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

HENRY C. SHERER, M.D., 1 Washington Street, South Norwalk.

R. HAROLD LOCKHART, M.D., 144 Golden Hill Street, Bridgeport, *Recorder.*

Committee on Medical Economics

OLIVER L. STRINGFIELD, M.D., 58 South Street, Stamford, *Chairman.*

STUART H. BOWMAN, M.D., 58 South Street, Stamford.

D. CHESTER BROWN, M.D., 330 Main Street, Danbury.

GEORGE G. FAWCETT, M.D., 8 Washington Street, South Norwalk.

DANIEL P. GRIFFIN, M.D., 1278 East Main Street, Bridgeport.

ROBERT L. MOORE, M.D., 520 West Avenue, Norwalk.

BERKLEY M. PARMELEE, M.D., 144 Golden Hill Street, Bridgeport.

J. LEONARD VICKERS, M.D., 23 Maple Avenue, Greenwich.

JAMES DOUGLAS GOLD, M.D., 839 Myrtle Avenue, Bridgeport, *ex-officio.*

Annual Meeting, Second Tuesday in April, at Bridgeport.

Semi-Annual Meeting, First Wednesday in October.

BETHEL

1925 Moore, Homer Franklin, 4 Grand ave.

1931 Solley, Frank Deming, 49 Elm.

1899 Wight, George DeWitt, 35 Greenwood ave.

BRIDGEPORT

1933 Adzima, Joseph Matthew, 409 Noble ave.

1932 Alpert, Max, 881 Lafayette.

1935 Antell, Maxwell Joseph, 1690 Barnum ave.

1920 Apsel, Abraham, 1620 Fairfield ave.

1928 Backer, Marcus, 881 Lafayette.

1916 Banks, Daniel Tony, 385 Barnum ave.

1913 Beaudry, Joseph Horace, 109 Rowsley.

1913 Bernstein, Abraham, 472 State.

1900 Blank, Elmer Francis, 387 Noble ave.

1935 Bogin, Maxwell, 144 Golden Hill

1921 Booe, John Grady, 144 Golden Hill.

1927 Brodsky, Michael Emanuel, 881 Lafayette.

1923 Buckmiller, Frank Charles, 1119 Stratford ave.

1919 Calvin, Claudius Virgil, 144 Golden Hill.

1920 Carroll, Francis Patrick, 919 Fairfield ave.

1932 Carroll, Philip Roger, Jr., 1218 Noble ave.

1920 Cheney, Maurice Lionel, 144 Golden Hill.

1925 Cohen, Joseph, 1130 Stratford ave.

1924 Conklin, Cornelius Stephen, 468 Clinton ave.

1936 Connors, Edwin Robert, 416 Boston ave.

1935 Creaturo, Nicholas Edward, 1665 East Main.

1913 Curley, William Henry, 881 Lafayette.

1908 Curran, Philip John, 144 Golden Hill.

1894 Day, Fessenden Lorenzo, 819 Myrtle ave.

1935 Del Vecchio, Leonard Frederick, 763 Noble ave.

1920 DeLuca, Horatio Roger, 881 Lafayette.

1921 De Witt, Edward Nicholas, 881 Lafayette.

1913 Finkelstone, Benjamin Brooks, 144 Golden Hill.

1897 Fleck, Harry Willard, 897 Lafayette.

1908 Formichella, Giovanni, 534 E. Washington ave.

1916 Gade, Carl Johannes, 144 Golden Hill.

1929 Garbelnick, David Abraham, 1102 E. Main.

1907 Gardner, Charles Wesley, 144 Golden Hill.

1916 Garlick, George Burroughs, 144 Golden Hill.

1916 Gilday, James Lowry, 819 State

1927 Gildea, Mark Andrew, 881 Lafayette.

1895 Gold, James Dougias, 839 Myrtle ave.

1927 Greenspun, David Stoven, 144 Golden Hill.

1916 Griffin, Daniel Patrick, 1278 E. Main.

1923 Griswold, Arthur Sheldon, 144 Golden Hill.

1928 Griswold, Crawford, 144 Golden Hill.

1920 Groark, Owen James, 881 Lafayette.
1913 Hale, Fraray, 144 Golden Hill.
1928 Harshbarger, Isaac Long, 144 Golden Hill.
1920 Havey, Leroy Austin, 144 Golden Hill.
1909 Hawley, George Waller, 144 Golden Hill.
1915 Hippolitus, Paul DiFrancesca, 255 Barnum ave.
1930 Hooper, G. Herbert, 1643 E. Main.
1933 Horn, Benjamin, 1278 E. Main.
1916 Horn, Martin Irving, 915 North ave.
1920 Howard, Joseph Henry, 144 Golden Hill.
1912 Hyde, Charles Elias, 881 Lafayette.
1932 James, Arthur Gregory Boswell, 1424 Stratford ave.
1932 Kalman, Eugene, 1389 Fairfield ave.
1927 Keegan, Daniel Francis, 144 Golden Hill.
1924 Kneale, Halford Benson, 144 Golden Hill.
1924 Kornblut, Alfred, 1539 Fairfield ave.
1913 Lambert, Henry Bertram, 144 Golden Hill.
1926 Laszlo, Andreas Andre, 881 Lafayette.
1925 Levenson, Albert, 881 Lafayette.
1904 Leverty, Charles Joseph, 528 Park pl.
1933 Levinsky, Maurice, 480 Noble ave.
1927 Levy, Maurice Noel, 480 Clinton ave.
1931 Lockhart, Reuben Harold, 144 Golden Hill.
1887 Lynch, John Charles, 826 Myrtle ave.
1904 Lynch, Robert Joseph, 144 Golden Hill.
1932 Margulis, Abraham Bernard, 171 Harrison.
1922 Maxwell, John Alphonsus, 919 Stratford ave.
1923 McManus, James Patrick, 1390 E. Main.
1913 McQueeney, M. Andrew, 1315 Noble ave.
1931 Meyer, Fritz Martin, 144 Golden Hill.
1892 Miles, Henry Shillingford, 144 Golden Hill.
1932 Mooney, Sydney, 1116 Stratford ave.
1936 Murray, William J. C., 784 Noble ave.
1901 Nettleton, Irving LaField, 775 Washington ave.
1919 Neumann, Harry Aaron, 588 State.
1925 Nichols, Charles William, 1221 Stratford ave.
1920 Nickum, John Stanley, 144 Golden Hill.
1936 Nolan, John F., 1260 E. Main.
1925 OBrien, Francis James, 74 Circular ave.
1920 O'Connell, John Gabriel, 144 Golden Hill.
1894 O'Hara, William James Aloysius, 361 Barnum ave.
1921 Parmelee, Berkley Melvin, 144 Golden Hill.
1920 Pasuth, Bartholomew Charles, 534 Connecticut ave.
1909 Patterson, Daniel Cleveland, 881 Lafayette
1913 Peters, Henry LeBaron, 763 Park ave.
1930 Pileggi, Peter, 634 Washington ave.
1935 Plukas, Joseph Martin, 339 South ave.
1905 Pyle, Francis Winthrop, 144 Golden Hill.
1933 Quatrano, Joseph Charles, 835 Fairfield ave.
1916 Quinn, John Francis, 144 Golden Hill.
1916 Reich, Upton Sharetts, 2095 Main.
1918 Roberts, Edward Russell, 144 Golden Hill.
1913 Roche, Thomas Joseph, 1815 Noble ave.
1936 Rockwell, Alice Elizabeth, 1775 Noble ave.
1913 Rowe, Michael James, 431 Washington ave.
1913 Sansone, Nicola Maria, 519 Pembroke.
1928 Sekerak, Arthur Joseph Francis, 408 Barnum ave.
1913 Shea, John Francis, 144 Golden Hill.
1903 Smith, Dorland, 881 Lafayette.
1935 Smith, Joseph Jacob, 300 Stratfield rd.
1919 Smith, Stanton Reinhart, 144 Golden Hill.
1913 Smykowski, Bronislaw Louis, 405 Barnum ave.
1930 Sollosy, Alexander, 645 Bostwick ave.
1909 Sprague, Charles Harry, 29 Hanover.
1920 Taylor, Clifton Clark, 881 Lafayette.
1925 Tolk, Nathan Robert, 558 Clinton ave.
1895 Tukey, Frank Martin, 144 Golden Hill.
1929 Turchik, Frank, 1831 Barnum ave.
1934 Tutles, Alexander James, 2180 Main.
1932 Uvitsky, Irving Harry, 3101 Main.
1923 Walsh, James Francis, 583 Noble ave.
1903 Warner, George Howell, 144 Golden Hill.
1904 Waterhouse, Henry Edwin, 144 Golden Hill.
1920 Watts, Joseph Francis, 881 Lafayette.
1913 Weadon, William Lee, 144 Golden Hill.
1922 Weise, Ellwood Carl, 144 Golden Hill.
1914 Weldon, Edwin Bernard, 144 Golden Hill.
1936 Yeager, Charles Frederick, 2139 E. Main.
1935 Zaur, Israel Sidney, 2744 Main.

DANBURY

1929 Amos, Isadore Louis, 317 Main.
1929 Booth, John Dibble, 173 Main.
1902 Bronson, William Thaddeus, 41 West.
1888 Brown, David Chester, 330 Main.
1928 Delohery, Cornelius Leo, 65 Main.
1935 Driscoll, Jerome James, 206 Main.
1931 Gaffney, John James, 179 Main.
1931 Genovese, Frank Thomas, 172 White.
1930 Gibson, Donald Farnham, 75 West.
1929 Goldys, Frank Max, 209 Main.
1897 Gordon, William Francis, 26 West.
1912 Moore, Howard Delano, 203 Main.
1912 Mullins, Samuel Frederick, 116 Main.
1924 Selleck, Nathaniel, 215 Main.
1926 Selleck, Nathaniel Benedict, 215 Main.
1913 Smith, Arthur Charles, 246 Main.
1920 Stahl, William Martin, 343 Main.
1884 Stratton, Edward Augustus, 173 Main.
1907 Sunderland, Paul Ulysses, 160 Deer Hill ave.
1929 Sunderland, William Alexander, 158 Deer Hill ave.
1932 Tomaino, Felix Francis, 39 West.

DARIEN

1937 Huntington, Frederic Sargent, Middlesex and Hollow Tree Ridge Roads.

FAIRFIELD

1928 Biehn, Sidney Lister, 22 Reef rd.
1932 Pitock, Morris Philip, 570 Post rd.
1925 Poole, Lawrence Earl, 100 Reef rd.

GREENWICH

1935 Amoss, Harold Lindsey, 21 Field Point rd.
1905 Burke, William, 153 Mason.
1934 Clark, J. Bayard, 1 West Elm.
1904 Clarke, John Alexander, 67 Mason.
1933 Close, John Frederick, 66 Milbank ave.
1934 Hitchcock, Freeman St. Clair, 275 N. Maple ave.
1927 Knapp, Charles Stanley, 18 Field Point rd.
1918 Knapp, Charles Whittemore, 43 Maple ave.
1916 Knowlton, Don Jerome, 36 Mason.
1933 Lockwood, Jane, 259 E. Putnam ave.
1932 *McCreery, John Alexander, 43 Maple ave.
1935 Rogers, Robert Page, 111 North.
1934 Tinkess, Donald Ewing, Greenwich Towers.
1933 Vickers, James Leonard, 31 Hillside Drive.

COS COB

1912 Bergin, Thomas Joseph, 2 Mead ave.

OLD GREENWICH

1914 Austin, Albert Elmer, 13 Arcadia rd.
1926 Kaprielian, Haigazoon Kruger, 312 Sound Beach ave.
1936 Kelly, James Colman Francis, 282 Sound Beach ave

MONROE

STEPNEY DEPOT

1912 Wales, Francis Joseph.

NEW CANAAN

1933 Bucciarelli, John Anthony, 93 East ave.
1932 *Lowsley, Oswald Swinney, "Twin Knolls" 29 Cherry
1908 O'Shaughnessy, Edmund Joseph, 29 Cherry.
1935 Terhune, William Barclay, Valley rd.
1931 Wadsworth, Ruth Flanigen, Smith Ridge.

NEWTOWN

1927 Desmond, Waldo Fairfield.
1937 Geck, Otto Francis, Fairfield State Hospital.
1935 Grout, Stillman Proctor, Fairfield State Hospital.
1936 Moore, Clifford Douglas, Fairfield State Hospital.

SANDY HOOK

1933 George, John Joseph.

NORWALK

1912 Bryon, Benn Adelmer, 344 Main ave.
1933 Chipman, Sidney Shaw, 520 West ave.
1915 Kellogg, Henry Kirke White, 725 West ave.
1930 Miller, John, 711 West ave.
1933 Moore, Robert Lynn, 520 West ave.
1934 Murray, Archibald, Silver Mine.
1929 Patterson, Frederic Arthur, 520 West ave.
1930 Perkins, Charles Winfield, 520 West ave.
1920 Perry, Mabelle Jeanne, 676 West ave.
1917 Powers, John Thomas Haliburton, 471 West ave.
1928 Scanlon, Thomas Francis, 394 West ave.
1934 Stone, William Stephen, Chestnut Hill.
1929 Tracey, Edward John, 637 West ave.
1890 Tracey, William Joseph, 637 West ave.
1920 Tracey, William Wallace, 637 West ave.
1904 Turner, Arthur Robert, 701 West ave.
1934 Wallace, Victor George Henry, 520 West ave.

SOUTH NORWALK

1936 Beck, Eugene C., 75 So. Main.
1918 Bradley, Theron Robert, 9 Washington.
1922 Fawcett, George Gifford, 8 Washington.
1923 McMahon, William Henry, Jr., 13 Washington.
1896 Sherer, Henry Clifford, 1 Washington.
1931 Simon, Louis Goodwin, 59 South Main.
1923 Wolfe, Robert Milton, 61 South Main.

REDDING

1896 Smith, Ernest Herman.

RIDGEFIELD

1926 Lowe, Russell Walter, 126 Main.
1927 Woodford, Francis Bowditch, 62 Main.

SHELTON

1912 Black, John Eugene, 40 White.
1917 Finn, Edward James, 452 Howe ave.
1930 Gaetz, Thomas Harold, "Laurel Heights."
1925 Lynch, Edward James, "Laurel Heights."
1900 Nettleton, Francis Irving, 35 White.
1895 Randall, William Sherman, 241 Coram ave.
1919 Williams, Fred S., Booth Hill rd.

STAMFORD

1936 Bannon, Frederick Michael, 65 South.
1907 Barnes, Frank Haslehurst, Dr. Barnes' Sanitarium.
1927 Bissell, Addison Hayes, 65 South.
1926 Bowman, Stuart Howard, 58 South.
1935 Carpenter, Robert Morse, 636 Summer.
1904 Cloonan, John Joseph, 37 South.
1909 Crane, Ralph William, 50 Glenbrook rd.
1934 D'Andrea, Frank Henry, 29 South.
1909 Dichter, Charles Levi, 33 Forest.
1935 Dichter, Irving Samuel, 24 Suburban ave.
1922 Fear, Raymond Durstan, 72 St. George ave.
1933 Fincke, Charles Louis, 1 Atlantic.
1936 Fine, Joseph, 96 Main.
1931 Fiske, Madeline, 39 Broad.
1934 Friedberg, Solomon, 21 Forest.
1931 Gandy, Raymond Alfred, 57 Broad.
1913 Gandy, Raymond Reeves, 57 Broad.
1931 Giles, Newell Walton, 25 Bedford.
1909 Godfrey, William Truitt, 65 South.
1929 Hamilton, John Stewart Marshall, 88 South.
1908 Harrison, John Francis, 512 Atlantic.
1916 Henderson, Alfred Collard, 55 Glenbrook rd.
1935 Henderson, Jean, 55 Glenbrook rd.
1901 Hertzberg, George Robert Reinhold, 40 South.
1930 Hertzberg, Reinhold Frederick, 227 Bedford.
1929 Keddy, Russell Alfred, 65 South.
1904 MacLean, Donald Robert, 31 West Park pl.
1934 Malloy, Edward Francis, 63 South.
1933 McFarland Frederick William, 65 South.
1928 McGourty, Andrew Frederick, 7 Glenbrook rd.
1935 McGourty, David Philip, 25 Bedford.
1924 McMahon, Francis Cash, 62 Suburban ave.
1934 Meade, Charles Havelock Beverly, 433 Atlantic.
1930 Meschter, Eugene Funk, Yale & Towne Co.
1931 Murray, Henry Joseph, 53 South.
1911 Nemoitin, Jacob, 96 Main.
1928 Paul, Voyle Abrams, 58 South.
1885 Pierson, Samuel, 61 Broad.
1929 Resnik, William Harry, 65 South.
1928 Root, Stella Quimby, 39 Broad.
1936 Rose, Samuel A., 25 Bedford.
1929 Rynard, William Morvel Wesley, 29 South.
1932 *Schmidt, Norman Louis, 58 South.
1930 Sette, Alfred Joseph, 308 Atlantic.
1929 Shermak, Joseph Vincent, 162 Bedford.
1909 Shirk, Samuel Martin, 218 Bedford.
1936 Shockley, Francis Milton, Stamford Hall.
1917 Smith, William Earl, 65 South.
1934 Starrett, Jay Ellis, 184 Bedford.
1907 Staub, John Howard, 100 South.
1931 Stone, Merlin Jones, 76 Glenbrook rd.
1920 Stringfield, Oliver Linwood, 58 South.
1922 Tennan, Joseph Seymour, 65 South.
1931 Turnley, William Henry, 322 Main.
1934 Turton, Effie Howe, 90 Prospect.
1928 White, William Beverly, 322 Main.
1935 Williamson, Edward Augustus, 135 Prospect.
1930 Wilson, Leo Earl, 475 Atlantic.

GLENBROOK

1885 Phillips, Alfred Noroton, Middlesex rd.

STRATFORD

1936 Friedman, Nathan H., 891 E. Broadway.
1927 Haberlin, Chester Edward, 2921 Main.
1924 Heidger, Luther Caldwell, 972 E. Broadway.
1929 Hennessey, Edward Henry Joseph, 2390 Main.
1934 Maher, John Matthew, 2184 Main.
1931 Oesau, Harold Thomas, 1949 Main.
1935 Strayer, Luther Milton, Jr., 3486 Main.

TRUMBULL

LONG HILL

1912 Smith, George Arthur.
1934 Wehger, Roland Theodore.

WESTPORT

1930 Ellrich, David Lionel, 125 E. State.
1932 Gillette, Claude Wesley, 110 Charles.
1934 Morgan, William Oliver, 193 Main.
1927 Munson, William Russell, 20 E. Church.
1925 Phillips, Harry Shaw, 44 E. Church.
1936 Teuscher, William P. 167 Compo.

GREENS FARMS

1934 Paul, Francis, Hall-Brooke Sanitarium.
1934 Smith, Stephen Munro, Box 31.

OUT OF COUNTY

1921 Coyle, Anna Elizabeth Mulheron, 16 Church st., Windsor Locks.
1933 Maddren, William Harvey, 126 Pine st., Freeport, L. I.
1907 Pratt, Nathan Tolles, Saybrook.
1936 Sowell, Norman B., Apt. 1, Fuller Gardens, Ossining, N. Y.
1924 Williams, Frederic Darbey, Valley Falls, R. I.

Total number 292

HARTFORD COUNTY

President, RALPH A. RICHARDSON, M.D., 4 School Street, Bristol.
Vice-President, MAURICE T. ROOT, M.D., 51 North Main Street, West Hartford.
Secretary, STANLEY B. WELD, M.D., 179 Allyn Street, Hartford.
Councilor, H. GILDERSLEEVE JARVIS, M.D., 38 Prospect Street, Hartford.
Business Office, 38 Prospect Street, Hartford.

Censors

(One elected annually for a term of three years)

1934 ORAN A. MOSER, M.D., Rocky Hill, *Chairman.*
1935 LAWRENCE H. FROST, M.D., 98 West Main Street, Plainville.
1936 ARTHUR B. LANDRY, M.D., 50 Farmington Avenue, Hartford.

Committee on Public Policy and Legislation

(State Committee member and one elected annually for a term of two years)

ARTHUR B. LANDRY, M.D., 50 Farmington Avenue, Hartford.
1935 HENRY N. COSTELLO, M.D., 179 Allyn Street, Hartford, *Chairman.*
1936 AARON P. PRATT, M.D., 253 Broad Street, Windsor.

Committee on Medical Ethics and Deportment

(Two appointed annually by the President for a term of three years)

1934 ORIN R. WITTER, M.D., 179 Allyn Street, Hartford, *Chairman.*
1934 D. C. Y. MOORE, M.D., 689 Main Street, South Manchester.
1935 C. BREWSTER BRAINARD, M.D., 50 Farmington Avenue, Hartford.
1935 GEORGE W. DUNN, M.D., 55 West Main Street, New Britain.
1936 BENJAMIN B. ROBBINS, M.D., 47 Main Street, Bristol.

THE PRESIDENT OF THE COUNTY MEDICAL ASSOCIATION.
STANLEY B. WELD, M.D., 179 Allyn Street, Hartford, *Recorder.*

Committee on Medical Economics

(One appointed annually by the President for a term of five years)

1936 JAMES R. MILLER, M.D., 179 Allyn Street, Hartford. *Chairman.*
1934 JOSEPH T. MATTEIS, M.D., 300 Main Street, New Britain (3 years).
1934 LEE J. WHITTLES, M.D., 351 Main Street, Glastonbury (4 years).
1934 PATRICK F. MCPARTLAND, M.D., 410 Asylum Street, Hartford.
1935 HOWARD BOYD, M.D., 937 Main Street, South Manchester.

Committee on Emergency Unemployment Medical Relief

(Appointed annually)

THACHER W. WORTHEN, M.D., 179 Allyn Street, Hartford, *Chairman.*
GEORGE H. BODLEY, M.D., 155 West Main Street, New Britain.
RALPH B. COX, M.D., Collinsville.
DAVID GABERMAN, M.D., 179 Allyn Street, Hartford.
D. C. Y. MOORE, M.D., 689 Main Street, South Manchester.
JOHN PURNEY, M.D., 99 West Main Street, New Britain.
BENJAMIN B. ROBBINS, M.D., 47 Main Street, Bristol.
EDWARD J. TURBERT, M.D., 703 Asylum Avenue, Hartford.
LEE J. WHITTLES, M.D., 351 Main Street, Glastonbury.

Annual Meeting, First Tuesday in April.
Semu-Annual Meeting, Fourth Tuesday in October.

BERLIN

1908 Hodgson, Thomas Cady, Worthington Ridge.

KENSINGTON

1924 Griswold, Matthew Hammond, 75 New Britain rd.

BLOOMFIELD

1933 Thompson, Maurice Bainton, Wintonbury ave.

BRISTOL

1930 Appell, Paul Harry, 110 South.
1934 Beatrice, Alphonse Anthony, 321 Main.
1936 Bird, Frederick Stanford, 9 N. Main.

1932 Borkowski, Boleslaus Joseph, 4 School.
1900 Brackett, Arthur Stone, 321 Main
1923 Curtiss, Mabel Eloise, 81 Main.
1934 Donohue, Bartholomew Francis, 481 N. Main.
1935 Flynn, William Henry, 170 Main.
1925 Gore, Michael Alvord, 321 Main.
1921 Hanrahan, William Richard, 157 Main.
1928 LaPlume, Albert Antonio, 218 West.
1929 Nestos, Peter Alexander, 63 Main.
1935 Papa, John Smith, 124 Main.
1921 Park, Paul Archibald, 133 Main.
1921 Richardson, Ralph Augustus, 4 School.
1922 Robbins, Benjamin Bissell, 47 Main.
1935 Siliciano, Raoul Andrew Victorius, 170 Main.
1936 Stevenson, William Robb, Bristol Hosp.
1909 Whipple, Benedict Nolasco, 45 N. Main.
1934 Winters, Herman W., 405 N. Main.

CANTON

Collinsville

1906 Cox, Ralph Benjamin.

EAST HARTFORD

1931 Brecker, Francis Wellington, 9 Burnside ave.
1936 Gallivan, John Norman, 74 Connecticut blvd.
1927 Goddard, Harvey Burton, 970 Main.
1923 Haylett, Howard Bulkeley, 1109 Main.
1933 Houle, Raymond Theodore, 1010 Main.
1936 Lewis, Samuel Donald, 635 Burnside ave.
1934 Lublin, Raymond David, 1011 Main.
1893 O'Connell, Thomas Smith, 59 Burnside ave.
1916 Onderdonk, Harrie Jay, 61 Richard rd.
1930 Taylor, Andrew, 7 Woodbridge.

EAST WINDSOR

Broad Brook

1923 Robinson, Wilfred John Thomas, Main.

ENFIELD

Hazardville

1906 Bridge, John Law, School.
1923 Shepherd, William Gordon, Main.

Thompsonville

1906 Dowd, Michael Joseph, 25 Church.
1932 Fancher, Henry Wilson, 1070 Enfield.
1932 McHugh, John Francis, 29 Central.
1916 Simonton, Frank Forester, 75 N. Main.
1928 Stein, Albert, 144 Pearl.
1917 Vail, Thornton Edwin, Main.

FARMINGTON

1933 Bunnell, Walls Willard, Main.
1933 Ellis, Francis Duffy, Jr., Elm Tree Inn.

GLASTONBURY

1933 Earle, Benjamin Baylis, 404 Main.
1935 Griswold, Edwin Monroe, 419 Main.
1924 Whittles, Lee Jay, 351 Main.

South Glastonbury

1908 Ward, James Ward, Station 57.

GRANBY

1923 Pendleton, Ernest Raymond.

HARTFORD

1927 Allen, Wilmar Mason, 20 S. Hudson.
1935 Angus, Leslie Robert, 267 Fairfield ave.
1927 Antupit, Louis, 242 Trumbull.
1936 Apter, Harry, 1453 Main.
1932 Arons, Milton Robert, 1061 Albany ave.
1904 Backus, Harold Simeon, 99 Pratt.
1934 Bailey, Harry, 242 Trumbull.
1913 Bailey, Neil Herbert, 68 Pratt.
1923 Bancroft, Harold Arthur, 179 Allyn.
1933 Bausch, Carl Philipp, 36 Pearl.
1886 Beach, Charles Coffing, 54 Woodland.
1907 Beach, Charles Thomas, 50 Farmington ave.
1929 Beatman, Israel, Jr., 650 Main.
1934 Beizer, Edmund, 1711 Park.
1894 Bell, George Newton, 179 Allyn.
1934 Bernstein, Dwight Joseph, 644 Park.
1923 Bestor, Eugene Leonard, 36 Pearl.
1926 Bidgood, Charles Young, 179 Allyn.
1936 Bingham, Charles Tiffany, 37 Forest.
1913 Biram, James Harrington, 179 Allyn.
1913 Birdsong, Julian Lee, 144 High.
1907 Blair, Edward Holden, 43 Farmington ave.
1897 Botsford, Charles Porter, 219 Collins.
1920 Boyce, Robert Valentine, 21 Sisson ave.
1903 Brainard, Clifford Brewster, 50 Farmington ave.
1916 Branon, Anthony William, 179 Allyn.
1912 Brayton, Howard Wheaton, 179 Allyn.
1931 Brewer, Timothy Francis, 211 Church.
1929 Buck, Burdette Jay, 50 Farmington ave.
1931 Buckley, Richard Cotter, 683 Asylum ave.
1936 Burgdorf, Alfred Louis, 18 Townley.
1932 Burlingame, Clarence Charles, 200 Retreat ave.
1928 Butler, Nicholas George, 50 Farmington ave.
1930 Byrne, David Walter, 422 Farmington ave.
1931 Calverley, Eleanor Jane Taylor, 143 Sigourney.
1914 Cantarow, Daniel, 10 Garden.
1934 Cappiello, Silvestro, 97 Vine.
1933 Carey, Thomas Cornelius, 50 Farmington ave.
1931 Carniglia, Ettore Francis, 50 Farmington ave.
1929 Carroll, James Edward, 220 Farmington ave.
1915 Carter, Earle Buell, 99 Pratt.
1930 Caulfield, Ernest Joseph, 683 Asylum ave.
1933 Cenci, Vincent Peter, 242 Trumbull.
1935 Clarke, Ralph deBallard, "Cedarcrest".
1922 Clason, Freeman Pell, 179 Allyn.
1905 Clifton, Harry Colman, 30 Farmington ave.
1931 Climan, Max, 242 Trumbull.
1896 Cochran, Levi Bennett, 50 Farmington ave.
1928 Cogan, George Eugene, 50 Farmington ave.
1913 Cogswell, Eliot Sanborn, 179 Allyn.
1936 Cogswell, Lawrence Perley, 179 Allyn.
1935 Connor, Joseph Joyce, 750 Main.
1933 Corcoran, Michael Anthony, 48 Crown.
1913 Costello, Henry Nicholas, 179 Allyn.
1924 Couch, Arthur Rockwell, 95 Farmington ave.
1921 Cragin, Donald Brett, 151 Farmington ave.
1933 Crosby, Edward Harding, 50 Farmington ave.
1936 Cunningham, James Morrow, 165 Capitol ave.
1914 Daly, Charles William, 750 Main.
1935 Daly, William Patrick, 342 Edgewood.
1929 Davenport, Anna Keith Prentiss, 154 Church.
1922 Davis, James Edward, 179 Allyn.
1932 Dawson, Lionel Montrose, 700 Main.
1909 DeBonis, Domenico A., 183 Westland.

1914 Deming, Clinton Demas, 179 Allyn.
1914 Deming, Edward Adams, 715 Asylum ave.
1931 DePasquale, Francis Lawrence, 1026 Main.
1934 DeVito, Michael Joseph, 1039 Main.
1931 Dion, Asa Joseph, 131 Washington.
1934 Donner, Samuel, 99 Pratt.
1892 Dowling, John Francis, 54 Church.
1923 Dunne, Richard Edwin, 50 Farmington ave.
1916 Dwyer, William, 18 Asylum.
1927 Elliott, Kirkor Gregory, 631 Park.
1915 Elliott, Calvin Hayes, 179 Allyn.
1895 Elmer, Edward Oliver, 1731 Park.
1914 Emmett, Francis Arthur, 410 Asylum.
1919 Fay, William James, 179 Allyn.
1929 Felty, Augustus Roi, 50 Farmington ave.
1934 Finley, George Clark, 50 Farmington ave.
1913 Flaherty, Claude Vincent, 50 Farmington ave.
1931 Friery, Clarence Milton, 111 Edwards.
1919 Furniss, Henry Watson, 1335 Main.
1927 Gaberman, David, 179 Allyn.
1921 Garland, Robert Bernard, 597 Broad.
1898 Gill, Michael Henry Richard, 36 Pearl.
1922 Gills, William Lee, 179 Allyn.
1934 Giorgio, Nicholas Anthony, 61 Edwards.
1935 Glass, George Courtenay, Jr., 476 Farmington ave.
1934 Glaubman, Henry Mitchell, 20 Lenox.
1926 Glazier, James Raymond, 179 Allyn.
1927 Goff, Charles Weer, 30 Farmington ave.
1936 Gold, Louis Henry, 715 Asylum ave.
1930 Goldenberg, Jacob Joseph, 629 Albany ave.
1933 Goodell, Robert Alvan, 79 Elm.
1900 Goodrich, Charles Augustus, 5 Haynes.
1919 Gosselin, George Adelor, 50 Farmington ave.
1935 Gould, Max Martin, 136 Main.
1923 Grau, Leroy Charles, 700 Main.
1923 Graves, James Chapman, 700 Main.
1930 Griggs, John Bolter, Jr., 50 Farmington ave.
1909 Griswold, Arthur Heywood, 179 Allyn.
1921 Grosvenor, Frank Livingstone, 700 Main.
1930 Hall, Llewellyn, 79 Elm.
1913 Harrington, Amos Thomson, 43 Farmington ave.
1930 Hastings, Louis Pease, St. Francis Hosp.
1908 Hatheway, Clarence Morris, 110 High.
1907 Hepburn, Thomas Norval, 179 Allyn.
1930 Heyman, Joseph, 650 Main.
1934 Hirschfeld, Otto Max, 1037 Albany ave.
1931 Hirshberg, Manuel Shelton, 650 Main.
1925 Hoffman, Charles Curtis, 700 Main.
1924 Hogan, Walter Louis, 750 Main.
1929 Holt, Kerchival Rogers, 50 Farmington ave.
1930 Holtz, Raymond Sidney, 242 Trumbull.
1934 Horning, Benjamin Graham, 165 Capitol ave.
1935 Hough, Perry Tyler, 179 Beacon.
1922 Howe, Glover Elbridge, 179 Allyn.
1936 Hurwitz, George Hillel, 75 Pearl.
1920 Hurwitz, Herman Max, 242 Trumbull.
1917 Hutchison, James Elder, 125 Trumbull.
1924 Ingraham, A. Elizabeth, 30 Farmington ave.
1934 James, Lewis Paul, 68 Pratt.
1912 Jarvis, Henry Gildersleeve, 179 Allyn.
1930 Jones, Frank Stafford, 179 Allyn.
1928 Kalin, Jacob Isaac, 286 Church.
1933 Kardys, John Albert, 487 Main.
1935 Karotkin, Robert Harold, 839 Albany ave.
1935 Kaschmann, Joseph, 445 Farmington ave.
1924 Katz, Henry, 750 Main.
1926 Keefe, George Gregory, 30 Sisson ave.
1934 Keefe, Raymond Starkey, 272 Franklin ave.
1934 Keefe, Walter Joseph, 30 Sisson ave.
1908 Keith, Albert Russell, 50 Farmington ave.
1920 Kelly, Claude Currie, 179 Allyn.
1927 Kilbourn, Austin, 580 Asylum.
1920 Kilbourn, Joseph Birney, 54 Pratt.
1906 Kingsbury, Isaac William, 125 Trumbull.
1932 Klein, Abraham Arthur, 509 Farmington ave.
1925 Knowlton, Millard, 101 Elm.
1901 Lampson, Edward Rutledge, 179 Allyn.
1913 Landry, Arthur Bernard, 50 Farmington ave.
1926 Landry, Benedict Bernard, 50 Farmington ave.
1929 Larrabee, John Whitfield, 650 Main.
1895 Lawton, Franklin Lyman, 580 Farmington ave.
1920 Leichner, William, 66 Farmington ave.
1933 Levin, Albert Elliot, 242 Trumbull.
1935 Levine, Sinclair Simcha, 54 Church.
1934 Little, Milton Frederick, 49 Pearl.
1915 Locke, Harry Leslie Franklin, 179 Allyn.
1923 Luby, Thomas John, 410 Asylum.
1916 Lynch, James Francis, 242 Trumbull.
1930 Lynch, John Francis, 99 Pratt.
1935 MacLean, Ethel Margaret, 402 Farmington ave.
1913 Madden, Leon Irving, 50 Farmington ave.
1919 Maislen, Samuel, 2138 Main.
1931 Mancoll, Morris Max, 242 Trumbull.
1932 Marranzini, Samuel, 763 Albany ave.
1930 McClellan, Wilbert Ernest, 750 Main.
1898 McCook, John Butler, 390 Main.
1936 McCormack, Christopher Joseph, 407 Farmington ave.
1934 McDermott, John Francis, 750 Main.
1933 McGrath, John Francis, 663 Maple ave.
1934 McLean, John Cassidy Joseph, 650 Main.
1932 McLellan, Philip Garretson, 683 Asylum ave.
1935 McNulty, Terence Francis, 50 Farmington ave.
1907 McPartland, Patrick Farrell, 410 Asylum.
1916 McPherson, Sidney Horace, 4 Atwood.
1933 Middlebrook, Louis Francis, Jr., 689 Asylum ave.
1935 Mikolainis, Mindaugis Vincent, 36 Capitol ave.
1916 Miller, James Raglan, 179 Allyn.
1933 Mirabile, Charles Samuel, 179 Allyn.
1933 Mirabile, Charles Samuel, 402 Farmington ave.
1909 Morrissey, Michael James, 18 Asylum.
1927 Moylan, Thomas Patrick, 50 Farmington ave.
1930 Moyle, Henry Brown, 488 Main.
1919 Murphy, James Edward, 179 Allyn.
1935 Murphy, Thomas Francis, 619 Park.
1897 Naylor, James Henry, 1 Main.
1926 Oberg, Frank Thorwald, 689 Asylum ave.
1923 O'Connell, John Francis, 865 Park.
1928 O'Connell, Maurice Francis, 214 Franklin ave.
1902 O'Flaherty, Ellen Pembroke, 140 Main.
1928 Ogden, Ralph Trafton, 179 Allyn.
1931 Olmsted, John Gerald Maurice, 404 Farmington ave.
1921 Osborn, Stanley Hart, 165 Capitol ave.

1927 Osmond, Robert Hunter, 50 Farmington ave.
1906 Outerson, Richard Ambrose, 50 Farmington ave.
1933 Paladino, Joseph Salvator, 300 Franklin ave.
1919 Parker, John Woodcock, 904 Main.
1926 Partridge, Winthrop Prescott, 179 Allyn.
1933 Phelps, Maxwell Overlock, 594 Farmington ave.
1929 Pike, Maurice Mitchell, 179 Allyn.
1934 Preston, Thomas Raymond, 65 Kenyon.
1934 Priddy, Foster Eugene, 30 Farmington ave.
1913 Prince, Alexander Louis, 36 Pearl.
1934 Prout, Curtis Tuttle, 200 Retreat ave.
1936 Quarrier, Sidney Sayre, 751 Asylum ave.
1923 Radin, Morris Jacob, 99 Pratt.
1916 Radom, Fanny, 2094 Main.
1928 Radom, Myron Michael, 242 Trumbull.
1923 Rankin, Bertrand Fred, 57 Pratt.
1913 Reardon, William Francis, 750 Main.
1934 Reidy, David Dillon, 750 Main.
1927 Resnisky, Andrew Francis, 57 Pratt.
1928 Reynolds, Harry St. Clair, 410 Asylum.
1916 Reynolds, Harry Stephen, 18 Asylum.
1930 Reynolds, Robert Gardner, 179 Allyn.
1922 Roberts, Douglas James, 179 Allyn.
1932 Robinson, Albert James, 55 Elm.
1929 Roche, Arthur Felix, 50 Farmington ave.
1934 Rollins, Henry Brock, 140 Garden.
1932 Romaniello, Rocco John, 415 Hillside ave.
1909 Rooney, James Francis, 410 Asylum.
1883 Root, Edward King, 990 Asylum ave.
1936 Rosenbaum, George Jonas, 647 New Britain ave.
1935 Roth, Frank Edward, 650 Main.
1900 Rowley, Alfred Merriman, 179 Allyn.
1910 Rowley, John Carter, 179 Allyn.
1907 Rowley, Robert Lee, 79 Elm.
1921 Russell, George Gardiner, 179 Allyn.
1936 Ryan, Francis James, 439 Farmington ave.
1916 Sagarino, John Francis, 306 Church.
1923 St. John, Leopold Albert, 25 Charter Oak ave.
1926 Salvin, Benjamin Lloyd, 242 Trumbull.
1932 Samponaro, Nicholas, 650 Main.
1928 Scafarello, Peter Joseph, 410 Asylum.
1932 Schaefer, Abraham Maurice, 435 Farmington ave.
1920 Shaefer, Jacob, 750 Main.
1934 Schuman, David Harry, 909 Albany ave.
1923 Scudder, Winthrop Davis, 179 Allyn.
1887 Segur, Gideon Cross, 67 Farmington ave.
1932 Seibert, Alfred Frank, 700 Main
1923 Seigall, Harry Arthur, 750 Main.
1920 Shafer, Alexander Samuel, 68 Pratt.
1928 Shaw, George Hamill, 700 Main.
1920 Shea, Daniel Edward, 137 N. Whitney.
1933 Shulman, David Nathaniel, 422 Farmington ave.
1932 Sigal, Jacob Bernard, 99 Pratt.
1934 Sills, Theodore Hopkins, 626 Park.
1936 Slossberg, David S., 541 Park.
1901 Smith, Earl Terry, 36 Pearl.
1925 Smith, George Mortimer, 700 Main.
1929 Snelling, Pinckney Welch, 179 Allyn.
1921 Spillane, Bernard, 179 Allyn.
1927 Standish, Erland Myles, 179 Allyn.
1935 Standish, Hilda Crosby, 100 Retreat ave.
1897 Standish, James Herbert, 701 Albany ave.
1931 Standish, Welles Adams, 701 Albany ave.
1905 Starr, Robert Suthoss, 179 Allyn.
1930 Steincrohn, Peter Joseph, 242 Trumbull.
1902 Steiner, Walter Ralph, 646 Asylum ave.
1935 Stempa, Henry, "Cedarcrest".
1930 Stephenson, Charles W., 179 Allyn.
1919 Stockwell, William Myron, "Cedarcrest".
1903 Storrs, Eckley Raynor, 179 Allyn.
1923 Storrs, Ralph Warren, 179 Allyn.
1923 Stoughton, Dwight Harold, 247 S. Whitney.
1908 Swan, Horace Cheney, 196 N. Whitney.
1914 Sweet, John Henry Throop, Jr., 179 Allyn.
1905 Swett, Paul Plummer, 4 Atwood.
1932 Talbot, Henry Pierce, 165 Capitol ave.
1906 Taylor, Maude Winifred, 47 Willard.
1921 Thenebe, Carl Leonard, 68 Pratt.
1922 Thompson, Hartwell Greene, 179 Allyn.
1930 Townsend, Wilmot Charles, 50 Farmington ave.
1912 Truex, Edward Hamilton, 99 Pratt.
1908 Tuch, Morris, 99 Pratt.
1907 Turbert, Edward Joseph, 703 Asylum ave.
1933 Uricchio, Joseph George, 260 Wethersfield ave.
1908 Vail, George Francis, 36 Pearl.
1923 VanKleeck, Euen, 40 N. Whitney.
1904 VanStrander, William Harold, 179 Church.
1926 VanWart, William Haley, 650 Main.
1917 Vernlund, Carl Frithiof, 179 Allyn.
1921 Vershbow, Nathan, 28 Sisson ave.
1932 Wagner, Carl Phillip, 200 Retreat ave.
1894 Waite, Frank Louis, 68 Pratt.
1914 Waite, Robert Lester, 68 Pratt.
1932 Wallace, Charles Kenneth, 700 Main.
1932 Warring, Howard Lewis, 1756 Main.
1934 Weiner, Julius Gills, 750 Main.
1931 Weisenfeld, Nathan, 169 Church.
1936 Weissenborn, Walter, 50 Farmington ave.
1907 Welch, Thomas Francis, 50 Farmington ave.
1920 Weld, Stanley Burnham, 179 Allyn.
1916 Wells, Donald Breckenridge, 580 Asylum.
1922 Wentworth, John Alexander, 50 Farmington ave.
1924 Whalen, Edward Joseph, 750 Main.
1907 Wiedman, Otto George, 179 Allyn.
1931 Wienski, John Casimer, 502 Park.
1935 Wilson, Charles Christopher, 249 High.
1907 Wilson, James Cornelius, 179 Allyn.
1930 Wilson, William Augustus, 683 Asylum ave.
1904 Witter, Orin Russell, 179 Allyn.
1934 Woodford, Chester North, 703 Asylum ave.
1923 Woodson, Jacob Tyree, 179 Allyn.
1916 Worthen, Thacher Washburn, 179 Allyn.
1922 Wright, William Witter, 700 Main.
1932 Wulp, George Adolf, 50 Farmington ave.
1912 Yergason, Robert Moseley, 50 Farmington ave.
1928 Zariphes, Constantine Argyros Paleslogos, 96 Main.
1934 Zeman, Burnhardt, 1269 Main.

MANCHESTER

1916 Holmes, LeVerne, 15 Main.
1936 Keeney, Robert Raymond, Jr., 791 Main.
1936 Zaglio, Edmond Robert, 12 Myrtle.

SOUTH MANCHESTER

1924 Boyd, Howard, 937 Main.

1905 Burr, Noah Arthur, 14 Park.
1926 Caldwell, David Manchester, 935 Main.
1926 Friend, Amos Edgar, 935 Main.
1927 Higgins, Edwin Carlton, 875 Main.
1925 Knapp, Robert Phineas, S. Main.
1921 Lundberg, George Albin Ferdinand, 755 Main.
1908 May, George William, 186 E. Center.
1916 Moore, Demarquis DeCasso Ye Rujo, 689 Main.
1930 Moriarty, Mortimer Emmett, 905 Main.
1893 Weldon, Thomas Henry, 905 Main.

NEW BRITAIN

1932 Benoit, Raoul Joseph, 99 W. Main.
1930 Blogoslawski, Walter Joseph, 419 Main.
1909 Bodley, George Houghton, 155 W. Main.
1935 Bristoll, Donald Andrews, 55 W. Main.
1927 Buol, Robert Stanley, 99 W. Main.
1935 Chalmers, Harriet Elizabeth, 45 Walnut.
1926 Chernaik, Samuel Julius, 300 Main.
1913 Cooley, Clifton Mather, 44 S. High.
1931 Darrow, John Edward, 55 W. Main.
1928 Donnelly, Stephen Patrick, 55 W. Main.
1934 Dray, Edward J., 259 Main.
1915 Dunn, George Washington, 55 W. Main.
1936 Enander, Fred Conrad, 25 Arch.
1923 Flanagan, George Michael, 489 Main.
1923 Flanagan, William Francis, 55 W. Main.
1931 Geetter, Isadore Stolper, 92 Grand.
1921 Grant, Arthur Sheldon, 55 W. Main.
1930 Kalett, Joseph, 99 W. Main.
1924 Kinsella, Gertrude Christine Johnson, 52 Main.
1924 Kinsella, Michael Allen, 52 Main.
1926 Lekston, Roman Francis, 197 W. Main.
1928 Loud, Norman Wiley, 22 Harrison.
1931 Marsh, Milton Loveland, 272 Main.
1930 Matteis, Joseph Theodore, 55 W. Main.
1926 Mendillo, Vincent Francis, 99 W. Main.
1934 Michalowski, Valerian Stanislaus, 561 Main.
1935 Moorad, Philip Jacob, 55 W. Main.
1912 Morrissey, William Thomas, 55 W. Main.
1923 Mouradian, Mary Garoudy, 87 Prospect.
1930 Pullen, Richard Woollard, 300 Main.
1930 Purney, John, 99 W. Main.
1936 Resnik, Edward, 166 Main.
1931 Robbins, Walter John, 242 Main.
1929 Savard, Arthur Joseph, 24 Washington.
1930 Schechtman, Charles Theodore, 81 W. Main.
1931 Schupack, Samuel David, 99 W. Main.
1930 Slysz, Ladislaus Bernard, 589 Main.
1928 Smith, Vincent Joseph, 55 W. Main.
1936 Squillacote, Vincent Joseph, 99 W. Main.
1935 Tokarczyk, John Joseph, 32 North.
1923 Tutles, Amelia Veronica, 272 Main.
1935 Volkenheim, Mendel, 55 W. Main.
1928 Waskowitz, David, 81 W. Main.
1934 Watson, William James, 272 Main.
1935 Weir, Loren Ray, 99 W. Main.
1932 White, John Cowles, 55 W. Main.

NEWINGTON

1936 Maher, Thomas Francis, Veterans Administration Facility.

PLAINVILLE

1878 Bull, John Norris, 57 Whiting.
1931 Cook, George Francis, 4 East Main.
1931 Frost, Lawrence Hubbard, 98 W. Main.
1934 Menousek, Joseph Albert, 14 E. Main.

ROCKY HILL

1904 Moser, Oran Alexander, Elm.

SIMSBURY

1905 Carver, John Preston, Hopmeadow.
1925 Murphy, Owen Lee, Weatogue.
1932 Stretch, James Edison, N. Main.

SOUTHINGTON

1935 Dudac, Thomas William, 9 Center.
1933 Gura, George Michael, 22 Main.
1935 Nagle, William Thomas, 23 Woodruff.
1929 Simmons, Eric Melville, Main.
1929 Thalberg, Reuben Edward, 32 N. Main.

SUFFIELD

1934 Caldwell, William Elry, 172 Main.
1929 Levy, William, 339 Main.
1930 Upson, William Hart, 394 Main.

WEST HARTFORD

1931 Case, Edward Percy, 28 Brunswick ave.
1932 Crawley, George Andrew, 330 Park rd.
1928 Cushman, Laurence Arnold, 23 S. Main.
1910 Denne, Thomas Harman, 39 N. Main.
1921 Dinsmore, William Wert, 28 Bainbridge rd.
1923 Drake, Percy Greenough, 804 Farmington ave.
1930 Kendall, Ralph Emerson, 30 Lexington rd.
1932 Lundborg, Francis Ludwig, 31 N. Main.
1935 Martin, John Garthwaite, 7 S. Main.
1930 Parshley, Philip Ford, 20 S. Quaker lane.
1924 Richman, Raynauld Dobson, 49 Bishop rd.
1924 Root, Maurice Timothy, 51 N. Main.
1935 Root, Sophie Townsend, 51 N. Main.
1933 Smith, Harry Bryant, 1014 Farmington ave.
1936 Stewart, Lester Quentin, 69 S. Main.
1934 Winters, John Thomas, 3 S. Main.

WETHERSFIELD

1932 Filson, Ralph Marshall, 4 Fairmont.
1883 Fox, Edward Gager, 32 Hartford ave.
1892 Howard, Arthur Wayland, 330 Main.
1933 Howard, Harold Amasa, 330 Main.
1927 Smith, William Bowers, 91 Center.
1932 Storms, William Frederick, 147 Main.

WINDSOR

1934 Dower, William Ambrose, 33 Maple ave.
1930 MacCready, William Harold, 38 Elm.
1924 Pratt, Aaron Paul, 253 Broad.

WINDSOR LOCKS

1934 Whitford, Warren, 110 Main.

OUT OF COUNTY

1881 Axtelle, John Franklin, Masonic Home Hospital, Wallingford.
1935 Breslin, James Edward, 81 Kenwood Rd., Boston, Mass.
1911 Cobb, Albert Edward, Canaan.
1929 Cranz, Alvin Henry, 66 Rue Montagne aux Herbes Potageris, Brusselles, Belgium.

1930 Dignam, Edward Anthony, Rockville.
1900 Enders, Thomas Burnham, Mystic.
1936 Hatfield, Margaret Ellen, 220 School Street, Janesville, Wisconsin.
1930 Kunkel, Frederick Earle, Merion Apts., Merion, Pa.
1928 Mahoney, Daniel F. C., P. O. Box 2089, Tucson, Arizona.
1902 Purinton, Charles Oscar, U. S. Veterans Hospital, Sunmount, N. Y.
1923 Walker, William Hastings, Newtown.
1933 Wood, Frank Oliver, Boston City Hospital, Boston, Mass.

Total number 467

LITCHFIELD COUNTY

President, MAURICE J. REIDY, M.D., 350 Main Street, Winsted.
Vice-President, HOWARD S. ALLEN, M.D., Woodbury.
Secretary, W. BRADFORD WALKER, M.D., Cornwall.
Councilor, HARRY B. HANCHETT, M.D., 55 Main Street, Torrington.

Censors

(One elected annually for a term of three years)

1934 JOSEPHINE EVARTS, M.D., Cornwall Bridge, *Chairman.*
1935 EDWIN G. READE, M.D., Main Street, Watertown.
1936 ROY V. SANDERSON, M.D., 504 Main Street, Winsted.

Committee on Public Policy and Legislation

(Elected annually)

SANFORD H. WADHAMS, M.D., 908 Main Street, Torrington, *Chairman.*
ELIAS PRATT, M.D., 27 Daycoeton Place, Torrington.
JOHN L. BUEL, M.D., North Street, Litchfield.

Committee on Medical Ethics and Deportment

(Appointed by President until removed or successor appointed)

HARRY B. HANCHETT, M.D., 55 Main Street, Torrington, *Chairman.*
JEROME S. CHAFFEE, M.D., Main Street, Sharon.
ROBERT HAZEN, M.D., Union Street, Thomaston.
ELIAS PRATT, M.D., 27 Daycoeton Place, Torrington.
CHARLES H. TURKINGTON, M.D., On-the-Green, Litchfield.
THE PRESIDENT OF THE COUNTY MEDICAL ASSOCIATION.
W. BRADFORD WALKER, M.D., Cornwall, *Recorder.*

Committee on Medical Economics

(Elected annually)

TIMOTHY M. RYAN, M.D., 24 Mason Street, Torrington, *Chairman.*
DONALD W. HERMAN, M.D., 356 Main Street, Winsted.
W. BRADFORD WALKER, M.D., Cornwall.

Annual Meeting, Fourth Tuesday in April.
Semi-Annual Meeting, First Tuesday in October.

CORNWALL

1922 Walker, Wilmarth Bradford.

CORNWALL BRIDGE

1931 Evarts, Josephine.

KENT

1912 Turrill, Henry Smith, Main.
1936 Wray, Edward Halloway, Jr., Kent School.

LITCHFIELD

1888 Buel, John Laidlaw, North.
1921 Childs, Albert Ewing, North rd.
1935 Kilgus, John Frank, Jr., West.
1910 Turkington, Charles Henry, On-the-Green.
1896 Warner, Charles Norton, North.

NEW MILFORD

1936 Lovelace, Daniel Dudley, 20 Bridge.
1893 Staub, George Edwards, 27 Treadwell ave.

NORFOLK

1909 Pinney, Almon William, Greenwoods rd., S.
1934 Ursone, Frank Domenico, Greenwoods rd., W.

NORTH CANAAN

CANAAN

1929 Adam, Forbes Sampson.
1935 Elliott, John Richard.
1924 Sellew, Robert Cowan.

PLYMOUTH

TERRYVILLE

1913 Lawton, Richard John, 9 N. Main.

SALISBURY

LAKEVILLE

1933 Herrick, Francis Leach.
1923 Peterson, Clark Kimball.
1917 Tuttle, Albert Lake.
1936 Wieler, Harry Julius, Hotchkiss School.

SHARON

1904 Chaffee, Jerome Stuart, Main.
1931 Hansell, Howard Russell, W. Main.

THOMASTON

1928 Curran, Harold Joseph, Main.
1903 Hazen, Robert, Union.
1910 Kane, James Hugh, S. Main.
1922 Wight, Winfield Emmons, Elm.

TORRINGTON

1898 Barker, Abram James, 216 Main.
1898 Carlin, Charles Henry, 236 Main.
1933 Craig, Delmar Allan, Charlotte Hungerford Hosp.
1930 Danaher, Thomas Joseph, 55 Main.
1935 Garston, Louis Edward, 49 Main.
1931 Giobbe, Michael Edward, 24 E. Main.
1936 Goldberg, Isadore Solomon, 5 Water.
1908 Hanchett, Harry Bigelow, 55 Main.
1936 Hill, Emerson Stanley, 53½ Main.
1930 Hoffman, Wallace Ellsworth, 28 Daycoeton pl.
1903 Hogan, William Joseph, 24 Mason.
1917 Kennedy, William Clement, 106 Main.
1936 LoRusso, Domenico L., 40 Main.
1923 Oelschlegel, Herbert Charles, 19 Maiden lane.
1923 Polito, Frank Leonard, 16 Litchfield.
1887 Pratt, Elias, 27 Daycoeton pl.
1904 Ryan, Timothy Mayher, 24 Mason.
1936 Sutherland, Francis Alexander, 46 Main.
1917 Thomson, Thomas Leonard, 24 Mason.
1898 Wadhams, Sanford Hosea, 908 Main.
1917 Weed, Floyd Albert, 13 Main.

WASHINGTON

1927 Jackson, Arthur Hartt.
1908 Wersebe, Frederic William.

WATERTOWN

1936 Cleary, Harold John, Main.
1897 Loveland, Ernest Kilborn, North.
1936 Meyers, Royal A., Main.
1919 Reade, Edwin Godwin, Main.

WINCHESTER

WINSTED

1936 Cornelio, Francis Joseph, 153 Main.
1933 Derwin, James Joseph, 350 Main.
1915 English, Chester Ferrin, 64 Main.
1927 Herman, Donald Warner, 356 Main.
1936 Levy, Aaron, 384 Main.
1896 Pratt, Edward Loomis, 596 Main.
1912 Reidy, Maurice Joseph, 350 Main.
1922 Sanderson, Roy Voter, 570 Main.

WOODBURY

1913 Allen, Howard Sanford.

OUT OF COUNTY

1881 Platt, William Logan, State Hosp., P. O. Box 476, Norwich.
1914 Shannon, Thomas Ignatius, Norwich.
1914 Woodward, Harold Burton, 321 Main St., Bristol.

Total number 66

MIDDLESEX COUNTY

President, LOUIS O. LABELLA, M.D., 612 Main Street, Middletown.

Vice-President, HAROLD E. SPEIGHT, M.D., 642 Main Street, Middletown.

Secretary, G. MANSFIELD CRAIG, M.D., 119 Main Street, Middletown.

Councilor, ROY L. LEAK, M.D., Connecticut State Hospital, Middletown.

Censors

(One elected annually for a term of three years)

1934 WALTER N. NELSON, M.D., P. O. Box No. 201, Cromwell, *Chairman.*
1935 HAROLD E. SPEIGHT, M.D.. 642 Main Street, Middletown.
1936 WILLIAM J. TATE, M.D.. Elm Street, Deep River.

Committee on Public Policy and Legislation

(Appointed until removed or successor appointed)

JAMES MURPHY, M.D., 101 Broad Street, Middletown, *Chairman.*
FRANK K. HALLOCK, M.D., Cromwell Hall, Cromwell.
ROY L. LEAK, M.D., Connecticut State Hospital, Middletown.

Committee on Medical Ethics and Deportment

(Two appointed biennially by the President for a term of six years)

1932 FRANK K. HALLOCK, M.D., Cromwell Hall, Cromwell, *Chairman.*
1932 FREDERICK B. BRADEEN, M.D., P. O. Box 221, Essex.
1934 JESSIE W. FISHER, M.D., 28 Crescent Street, Middletown.
1934 WILLIAM M. JOYCE, M.D., 121 Main Street, Middletown.
1936 ROY L. LEAK, M.D., Connecticut State Hospital, Middletown.
1936 HAROLD E. SPEIGHT, M.D., 642 Main Street, Middletown.
G. MANSFIELD CRAIG, M.D., 119 Main Street, Middletown, *Recorder.*

Committee on Medical Economics

(Appointed by the President)

JAMES MURPHY, M.D., 101 Broad Street, Middletown, *Chairman.*
FREDERICK B. BRADEEN, M.D., P. O. Box 221, Essex.
WILLIAM E. WRANG, M.D., 296 Main Street, Middletown.

Committee on Emergency Unemployment Medical Relief

(Appointed by the President)

JOSEPH MAGNANO, M.D., 576 Main Street, Middletown, *Chairman.*
CARL C. HARVEY, M.D., 119 Main Street, Middletown.
PETER F. PIASTA, M.D., 602 Main Street, Middletown.

Annual Meeting, Second Thursday in April.
Semi-Annual Meeting, Second Thursday in October.

CHESTER

1935 Lieberman, David Leonard.

CLINTON

1935 Stone, Harry Russell, West Main.
1936 Wilcox, Frederick Carpenter, Jr., 95 Grove.

CROMWELL

1934 Couch, Frank Hallock, Cromwell Hall.
1934 Couch, Mildred Warden, Cromwell Hall.
1885 Hallock, Frank Kirkwood, Cromwell Hall.
1928 Nelson, Walter Nathaniel, P. O. Box 201.
1925 Pierson, Emily Miller, Main.

EAST HADDAM

1924 Crook, Joseph Bruce, P. O. Box No. 133.

MOODUS

1935 Horsefield, Thomas Earl, P. O. Box 40.

EAST HAMPTON

1936 Gardner, Norman Homer.
1934 Soreff, Louis, 15 Main.

ESSEX

1903 Bradeen, Frederick Barton, P. O. Box No. 221.
1908 Davis, Charles Clarence, P. O. Box No. 350
1936 Scott, Kenneth Schurch.

HADDAM

1893 Mead, Kate Campbell Hurd.

MIDDLETOWN

1926 Armstrong, George Gabriel, Connecticut State Hosp.
1933 Beauchemin, Joseph Adelard, Connecticut State Hosp.
1926 Chase, Carl Clarence, 121 Main.
1936 Colomb, Henry Octave, Connecticut State Hosp.
1928 Compson, Florence Eberly Mentzer, Connecticut State Hosp.
1924 Craig, George Mansfield, 119 Main.
1935 Elliott, George Albert, Connecticut State Hosp.
1933 Farland, Victor L., Connecticut State Hosp.
1912 Fauver, Edgar, 55 Mt. Vernon.
1933 Fekety, Stephen Henry, 675 Main.

1921 Felt, Paul Revere, Connecticut State Hosp.
1900 Fisher, Jessie Weston, 28 Crescent.
1927 Frank, Harry Selig, 144 Washington.
1931 Gissler, Norman Edwin, 164 Court.
1927 Grower, Julius Harry, 164 Court.
1920 Harvey, Carl Clifford, 119 Main.
1935 Haviland, Walter Childs, Connecticut State Hosp.
1924 Holley, Erving, Connecticut State Hosp.
1933 Isenman, Robert, Connecticut State Hosp.
1924 Joyce, William Michael, 121 Main.
1928 LaBella, Louis Oronato, 612 Main.
1920 Leak, Roy Leighton, Connecticut State Hosp.
1925 Loffredo, Louis, 77 Crescent.
1893 Loveland, John Elijah, 93 Broad.
1929 Magnano, Joseph, 576 Main.
1934 Minor, Lloyd Wesley, 119 Main.
1896 Murphy, James, 101 Broad.
1896 Nolan, Daniel Andrew, 613 Main.
1928 Piasta, Peter Ferdinand, 602 Main.
1889 Potter, Frank Edward, 160 College.
1934 Roccapriore, Benjamin Anthony, 504 Main.
1926 Russman, Charles, Connecticut State Hosp.
1929 Speight, Harold Edmund, 642 Main.
1934 Springer, Maudie Marie Burns, Connecticut State Hosp.
1924 Sweet, Alfred Norton, 70 Crescent.
1933 Tracy, Frederick Erwin, 120 Pearl.
1919 Van Cor, Chester Arthur, Connecticut State Hosp.
1936 Waldman, Jacob Edward, 252 Main.
1933 Whiting, Harry St. John, Connecticut State Hosp.
1925 Wilder, Ella Annis, 80 S. Main.
1922 Wrang, William Emil, 296 Main.

OLD SAYBROOK

1905 Granniss, Irwin, P. O. Box 312.
1934 Greenberg, Aaron.

PORTLAND

1933 Schwartz, Philip Edward, 309 Main.

SAYBROOK

DEEP RIVER

1903 Pratt, Arthur Milton, P. O. Box 477.
1932 Tate, William James, Elm.

OUT OF COUNTY

1909 Chillingworth, Felix Percy, 416 Huntington ave., Boston, Mass.
1890 Coleburn, Arthur Burr, 5 Cannon st., Norwalk.
1873 Field, Albert, 82 Spruceland ave., Springfield, Mass.
1904 Kingman, James Henry, 96 Everit st., New Haven.
1926 *MacGillivray, Donald Joseph, 362 Commonwealth ave., Boston, Mass.
1934 Spignesi, John Theodore, Wallingford.
1928 Ward, Arthur Henry, Winchendon, Mass.
1922 *Whitney, Ray Lester, 464 Beacon st., Boston, Mass.

Total number 70

NEW HAVEN COUNTY

President, JOHN S. DYE, M.D., 111 West Main Street Waterbury.
Secretary, RALPH E. MCDONNELL, M.D., 158 Whitney Avenue, New Haven.
Councilor, HENRY L. SWAIN, M.D., 195 Church Street, New Haven.

Censors

(Elected annually)

SAMUEL C. HARVEY, M.D., 789 Howard Avenue, New Haven, *Chairman.*
JOSEPH I. LINDE, M.D., City Hall, New Haven.
ANDREW J. JACKSON, M.D., 20 East Main Street, Waterbury.

Committee on Public Policy and Legislation

(Appointed annually by the President)

RICHARD F. RAND, M.D., 246 Church Street, New Haven, *Chairman.*
JOHN F. HACKETT, M.D., 154 Grand Street, Waterbury.
DAVID R. LYMAN, M.D., Gaylord Farm Sanatorium, Wallingford.
THOMAS P. MURDOCK, M.D., 147 West Main Street, Meriden.
GEORGE M. SMITH, M.D., Pine Orchard, Branford.

Committee on Medical Ethics and Deportment

(Two appointed annually by the President for a term of three years)

1936 CHARLES J. BARTLETT, M.D., 183 Bishop Street, New Haven, *Chairman.*
1936 DAVID P. SMITH, M.D., 199 West Main Street, Meriden.
1934 M. HEMINWAY MERRIMAN, M.D., 115 Prospect Street, Waterbury.
1934 THOMAS H. RUSSELL, M.D., 57 Trumbull Street, New Haven.
1935 JOHN S. DYE, M.D., 111 West Main Street, Waterbury.
1935 SAMUEL C. HARVEY, M.D., 789 Howard Avenue, New Haven.
THE PRESIDENT OF THE COUNTY MEDICAL ASSOCIATION, *ex-officio.*
RALPH E. MCDONNELL, M.D., 158 Whitney Avenue, New Haven, *Recorder.*

Committee on Medical Economics

(Appointed by the President)

FRANCIS H. REILLY, M.D., 230 Church Street, New Haven, *Chairman.*
THEODORE F. BEVANS, M.D., 111 West Main Street, Waterbury.
WILLIAM J. DENNEHY, M.D., 1282 State Street, New Haven.
EDWARD W. FOSTER, M.D., 147 West Main Street, Meriden.
ALBERT E. HERRMANN, M.D., 101 North Main Street, Waterbury.
CHARLES E. KAUFMAN, M.D., 328 Main Street, West Haven.
JAMES D. MCGAUGHEY, M.D., 261 Center Street, Wallingford.
SAMUEL B. RENTSCH, M.D., 80 Elizabeth Street, Derby.

Annual Meeting, Fourth Thursday in April.
Semi-Annual Meeting, Fourth Thursday in October.

ANSONIA

1916 Aaronson, Michael S., 410 Main.
1935 Blumenthal, Edward Jedediah, 88 Main.

1915 O'Neil, William Henry, 156 Main.
1907 Parmelee, Edward Kibbe, 50 Main.
1932 Renehan, John Michael, 100 Main.
1924 Senfield, Maxon M., 110 Main.
1924 Steudel, Henry, 88 Main.
1924 Thomas, John Joseph, 290 Main.
1909 Tolles, Burton Isaac, 38 Main.
1900 Wilmot, Louis Howard, 2 S. Cliff.

BRANFORD

1934 Blanchard, Dana Lincoln, 19 Laurel.
1931 Bodie, William Joseph, 146 Montrowese.
1917 Gaylord, Charles Woodward, 93 S. Main.
1929 Levy, Nathan, 94 Main.
1916 McQueen, Arthur Samuel, 187 Montowese.

PINE ORCHARD

1919 Smith, George Milton.
1924 Whiteside, George Shattuck.

CHESHIRE

1926 Lindsay, John Crandall, State Reformatory.
1923 Moore, Wilbur John, Maple ave.

DERBY

1916 Baldwin, Charles Tomlinson, 74 Fourth.
1927 Burns, George Dewey, 272 Main.
1885 Loomis, Frank Newton, 100 Atwater ave.
1910 Parlato, Michael Antonio, 270 Elizabeth.
1929 Pepe, Carmen Thomas, 157 Minerva.
1890 Pinney, Royal Watson, 116 Derby ave.
1914 Plunkett, Thomas F., 18 Elizabeth.
1925 Rentsch, Samuel Burton, 61 Seymour ave.
1927 Scott, William Joseph, 58 Elizabeth.
1910 Treat, William Howard, 258 Main.

EAST HAVEN

1924 Taylor, Robert Mitchell, 578 Thompson ave.

GUILFORD

1935 Davis, George Breed, 29 Whitfield.
1916 Smith, Frederic DeWitt, 55 Park.

HAMDEN

1936 Corey, Walter VanArsdale, 1188 Whitney ave.
1926 Ematrudo, Frederick Roys, 1756 Whitney ave.
1904 Lay, Walter Sidders, 2320 Whitney ave.
1927 Slater, Morris, 1100 Dixwell ave.

MOUNT CARMEL

1890 Joslin, George Herri, 2798 Whitney ave.

MADISON

1929 Hughson, Donald Thomas, Boston Post rd.
1908 Rindge, Milo Pember, Boston.

MERIDEN

1934 Affinito, Thomas, 128 W. Main.
1929 Campbell, Sherbourne, 147 W. Main.
1928 Caplan, Henry, 27½ W. Main.
1924 Carroll, William Edward, "Undercliff".
1926 Conroy, Michael Joseph, 64½ E. Main.
1927 DeRosa, Sylvester Frank, 90 W. Main.
1930 Foster, Edward Wendell, 147 W. Main.
1921 Gibson, Cole Blease, "Undercliff".
1929 Hall, William Edward, 147 W. Main.
1896 LaPointe, John William Henry, 56½ W. Main.
1934 Lirot, Stephen Leo Robert, 28 Crown.
1907 Lockwood, Howard DeForest, 248 E. Main.
1934 Mekrut, Joseph Anthony, 34M W. Main.
1928 Mills, Bernard Litchfield, 94 E. Main.
1934 Misuk, Joseph Francis, 489 Broad.
1913 Murdock, Thomas Patrick, 147 W. Main.
1921 Otis, Fessenden Newport, 165 W. Main.
1920 Otis, Israel Sabine, 165 W. Main.
1932 Pennington, Harry Freeman, 455 Broad.
1931 Pierson, Louis A., 147 W. Main.
1916 Quinlan, Raymond Vincent, Lawton Bldg., 5 State.
1924 Raynolds, Randolph, "Undercliff".
1913 Smith, David Parker, 199 W. Main.
1935 Solomon, Charles Isadore, State School for Boys.
1934 Strickland, Harold, 128 W. Main.
1921 Tower, Arthur Augustus, 147 W. Main.
1936 Van Antwerp, Lee Douglas, "Undercliff".
1926 West, Helen, 132 E. Main.
1921 Wilson, James Alfred, 61 Colony.
1913 Wilson, Leslie Adams, 232 Colony.

MILFORD

1932 Budau, John Harry Diederichs, 442 E. Broadway, Silver Beach.
1913 Fischer, William John Henry, 3 Lafayette.
1929 Geib, Henry Albert, Zion Hill rd.
1935 Harrington, Albert Eugene, 28 Broad.
1932 Heady, Carlton Kellogg, 12 Cherry.
1928 Hyde, Clinton John, 63 Gulf.
1932 MacDonald, John Joseph, 159 Fourth ave., Laurel Beach.
1933 Stetson, Harry Warren, 42½ Broad.

DEVON

1934 Andrus, Oliver Burton, 168 Bridgeport ave.

NAUGATUCK

1891 Bull, Thomas Marcus, 17 Cedar.
1922 Duffy, Vincent Paul, 83 Meadow.
1923 Hill, William Edward, 150 Meadow.
1927 Johnson, Harold Albert, 297 Church.
1936 Pine, Clifford Shepard, 14 Hillside ave.
1906 Reilly, Walter A., 170 Meadow.
1926 Williams, Edward Everett, 269 Church.

UNION CITY

1935 Curran, Edwin Russell, 364 N. Main.

NEW HAVEN

1935 Abbey, Edward Augustin, 442 Temple.
1921 Alderman, Irving Sanders, 204 Park.
1925 Allen, Edward Pratt, 27 Elm.
1902 Allen, Millard Filmore, 65 Dixwell ave.
1893 Alling, Arthur Nathaniel, 257 Church.
1919 Alpert, Reuben Henry, 1142 Chapel.
1932 Amatruda, Frank Gabriel, 542 Chapel.
1908 Arnold, Harold Sears, 442 Temple.
1930 Arnold, Hermann Bruno, 1460 Chapel.
1893 Bacon, Leonard Woolsey, 66 Trumbull.
1916 Baldwin, William Pitt, 1226 Chapel.
1920 Barker, Creighton, 129 Whitney ave.
1900 Barnes, William Samuel, 265 Church.
1908 Barrett, William Joseph, 546 Chapel.
1896 Bartlett, Charles Joseph, 183 Bishop.
1936 Bassin, Alexander Lewis, 789 Howard ave.
1930 Batelli, Clement Francis, 328 Townsend ave.

1925 Battista, Anthony William, 111 Osborn ave.
1934 Bayne-Jones, Stanhope, 333 Cedar.
1909 Beck, Frederick George, 193 York.
1926 Behan, Edmund Joseph, 1370 Chapel.
1931 Benedict, Mary Kendrick, 10 Lincoln.
1911 Bergman, Axel P., 27 Elm.
1920 Berman, Harry Loring, 1142 Chapel.
1907 Blake, Eugene Maurice, 303 Whitney ave.
1922 Blake, Francis Gilman, 789 Howard ave.
1927 Blodinger, Israel Edward, 1142 Chapel.
1927 Blum, Max, 566 Howard ave.
1907 Blumer, George. 158 Whitney ave.
1911 Boardman, Albertus Kellogg, 441 Forbes ave.
1922 Boardman, Emma Irene, 346 Norton.
1926 Bodie, John Allen, 221 Columbus ave.
1919 Bonoff, Zelly A., 1204 Chapel.
1919 Bretzfelder, Karl Benjamin, 265 Church.
1935 Brody, Bernard Stephen, 789 Howard ave.
1930 Bunstead, John Henry, 256 Bradley.
1934 Canfield, Norton, 789 Howard ave.
1928 Capecelatro, Alfonso, 142 Columbus ave.
1916 Carelli, Genesis Frank, 27 Elm.
1932 Celentano, Luca Eugene Humbert, 115 Howe.
1892 Cheney, Benjamin Austin, 265 Church.
1934 Claiborn, Louie Nixon, 303 Whitney ave.
1935 Climo, Samuel, 1172 Chapel.
1923 Cobey, James Francis, 1210 Chapel.
1922 Coffey, James Ryle, 216 Grand ave.
1925 Cofrances, Louis William, 190 Winthrop ave.
1901 Cohane, Jeremiah Joseph, 59 College.
1904 Cohane, Timothy Francis, 400 Congress ave.
1924 Cohen, William, 1195 Chapel.
1917 Collins, William Francis, 336 St. John.
1921 Colwell, Howard Spencer, 129 Whitney ave.
1914 Comfort, Charles Williams, Jr., 27 Elm.
1915 Comstock, Fred Walter, 1172 Chapel.
1931 Connolly, Arthur James, 439 Howard ave.
1914 Conte, Harry Albert, 27 Wooster pl.
1921 Cook, Robert Jay, 85 Whitney ave.
1931 Corradino, Charles Louis, 516 Howard ave.
1921 Creadick, Abraham Nowell, 79 Trumbull.
1936 Culotta, Charles Salvatore, 388 Orange.
1934 Cushing, Harvey, 789 Howard ave.
1924 Dallas, Marion, 248 Bradley.
1935 D'Amico, Michael, 303 Whitney ave.
1934 Darrow, Daniel Cady, 789 Howard ave.
1920 Dayton, Arthur Bliss, 129 Whitney ave.
1920 Deming, Charles Kenneth, 257 Church.
1922 Deming, Clyde Leroy, 789 Howard ave.
1925 Dennehy, William James, 1282 State.
1908 Diefendorf, Allen Ross, 121 Whitney ave.
1922 Duffy, William Core, 55 Trumbull.
1923 Errico, Louis, 26 Elm.
1925 Evans, Theodore Schlosser, 66 Trumbull.
1935 Fenney, Philip William, 705 Dixwell ave.
1913 Ferguson, Robert John, 59 College.
1929 Fiskio, Peter William, 307 Humphrey.
1925 Fitzgerald, Charles J., 265 Church.
1914 Flynn, Charles Thomas, 41 Trumbull.
1917 Flynn, David Aloysius, 326 Grand ave.
1929 Flynn, Harold Aloysius, 464 Dixwell ave.
1888 Foote, Charles Jenkins, 257 Church.
1929 Foster, Lewis Chandler, 256 Bradley.
1925 Fox, James Charles, Jr., 789 Howard ave.
1924 Freedman, Barnett Philip, 322 George.
1936 Freeman, David, 405 Temple.
1920 Geraci, Lucian Arthur, 546 Chapel.
1923 Gettings, James Augustus, 209 Whalley ave.
1924 Giamarino, Henry James, 532 Chapel.
1923 Giannotti, Carl Charles, 214 Lafayette.
1926 Glazer, Morris, 1179 Chapel.
1910 Goldberg, Samuel James, 1172 Chapel.
1912 Goldman, George, 201 Park.
1927 Goldstein, Morris, 451 George.
1935 Goldstein, Richard Moses, 333 Cedar.
1933 Gordon, Ernest Foster, 31 Howe.
1921 Gordon, Robert Kelnar, 416 Crown.
1924 Greenhouse, Barnett, 1186 Chapel.
1927 Groark, Joseph Anthony, 145 Grand ave.
1931 Grodin, Herman Wolmer, 840 Howard ave.
1936 Hankin, Morris Albert, 1184 Chapel.
1930 Harris, Benedict Richard, 176 Dwight.
1931 Harrison, Elizabeth Ross, 442 Temple.
1935 Hart, James Clement, 340 Grand ave.
1903 Hartshorn, Willis Ellis, 67 Trumbull.
1936 Harvey, Daniel Foster, 142 Everit.
1920 Harvey, Samuel Clark, 789 Howard ave.
1916 Hendricks, Albert Ludwig, 26 Trumbull.
1907 Henze, Carl William, 466 Orange.
1925 Herrmann, Julian Bertram, 204 Park.
1908 Hessler, Herman Philip, 370 Livingston.
1930 Higgins, Joseph John, 48 Dwight.
1922 Hillman, Maurice Manuel, 1249 Chapel.
1927 Hippolitus, Jean DeFrancis, 1447 Chapel.
1916 Hirata, Isao, 1507 Chapel.
1924 Howard, Albert Joseph, 432 Whalley ave.
1935 Howard, Marion Edith, 789 Howard ave.
1915 Hynes, Frederick Henry, 195 Church.
1903 Hynes, Thomas Vincent, 1441 Chapel.
1914 Jack, Gabriel J., 347 Orange.
1924 Jack, John Louis, 347 Orange.
1936 Jackson, Edith Banfield, 333 Cedar.
1914 James, George Richard, 195 Church.
1927 Jenkins, Ralph Hathaway, 59 College.
1933 Johnson, Carl Edward, 158 Whitney ave.
1919 Johnson, Edgar Mayer, 73 Howe.
1932 Kaplowe, Joseph Louis, 201 Park.
1911 Keating, Hugh Francis, 635 Howard ave.
1901 Kilbourn, Clarence Leishman, 202 Blatchley ave.
1898 Kirby, Frank Alonzo, 470 Winthrop ave.
1928 Klebanoff, Harry Erwin, 1497 Chapel.
1917 Kleiner, Simon Bretzfelder, 41 Trumbull.
1935 Krosnick, Morris Yale, 1195 Chapel.
1935 Kuh, Clifford, 31 Howe.
1913 Lang, William Peter, 139 Dwight.
1936 Lavietes, Paul Harold, 789 Howard ave.
1915 Lear, Maxwell, 1172 Chapel.
1935 Leddy, Percy Allen, 109 College.
1923 Levin, Hyman Alexander, 1142 Chapel.
1920 Levy, Daniel Frederick, 5 College.
1905 Lewis, Dwight Milton, 169 Church.
1923 Lewis, Robert Morton, 52 Trumbull.
1911 Linde, Joseph Irving, City Hall.
1927 Lindsay, Merrill Kirk, 434 Temple.

1934 Lindskog, Gustaf Elmer, 789 Howard ave.
1919 Little, Herman Clark, 303 Whitney ave.
1927 Logan, William Joseph, 412 Whalley ave.
1905 Ludington, Nelson Amos, 1252 Chapel.
1926 MacCready, Paul Beattie, 442 Temple.
1900 Maher, James Stephen, 261 Orange.
1889 Maher, Stephen John, 405 Orange.
1878 Mailhouse, Max, 195 Church.
1927 Marshall, Carter Lee, 198 Dixwell ave.
1928 Marvin, Harold Myers, 303 Whitney ave.
1921 Massa, Anthony Francis, 697 Elm.
1931 Mastroianni, Luigi, 248 Bradley.
1925 Maurer, Lloyd Leslie, 41 Trumbull.
1920 Maynard, Harry Hilts, 882 Howard ave.
1934 McAlenney, Paul Francis, Jr., 79 Trumbull.
1933 McCarthy, James S., 640 Whitney ave.
1893 McDonnell, Ralph Augustine, 158 Whitney ave.
1922 McDonnell, Ralph Edward, 158 Whitney ave.
1913 McGuire, William Charles, 104 Park.
1899 McIntosh, Edward Francis, 307 Alden ave.
1916 Mendillo, Anthony Joseph, 45 Trumbull.
1933 Mendillo, John Carleton Francis, 45 Trumbull.
1930 Mongillo, Frank, 20 Elm.
1916 Morse, Arthur Henry, 789 Howard ave.
1922 Musselman, Luther Kyner, 215 Whitney ave.
1921 Nahum, Louis Herman, 1142 Chapel.
1922 Newman, Joseph Thomas, 150 Shelton ave.
1914 Nichols, Ralph Wilbur, 57 Trumbull.
1932 Nodelman, Jacob, 20 Elm.
1933 O'Brasky, Louis, 1172 Chapel.
1920 O'Brien, William Henry Joseph, 265 Church.
1922 O'Connor, Denis Stanislaus, 158 Whitney ave.
1885 Osborne, Oliver Thomas, 1155 Forest rd.
1931 Oughterson, Ashley Webster, 789 Howard ave.
1936 Palmieri, Michael Walter, 551 Howard ave.
1929 Paul, John Rodman, 789 Howard ave.
1894 Peck, Robert Ellsworth, 1418 Chapel.
1922 Perrins, Harlan Bassett, 57 Trumbull.
1925 Peters, John Punnett, 789 Howard ave.
1927 Petrelli, Joseph, 455 Orange.
1923 Philipson, Samuel, 61 Park.
1909 Phillips, Frank Lyman, 405 Temple.
1935 Piazza, George Joseph, 78 Orchard.
1931 Pinn, Abraham Samuel, 75 Sherman ave.
1927 Poole, Allan King, 442 Temple.
1916 Porter, Donald Wallace, 58 Trumbull.
1927 Powell, Wilson, 1266 Forest rd.
1925 Powers, Grover Francis, 789 Howard ave.
1932 Putnam, Marian Cabot, 333 Cedar.
1934 Rademacher, Everett Stanley, 442 Temple.
1903 Rand, Richard Foster, 246 Church.
1903 Reilly, Francis Henry, 230 Church.
1924 Riccitelli, Mariano Louis, 476 Howard ave.
1929 Roberts, Frederick William, 129 Whitney ave.
1920 Rogers, Orville Forrest, 109 College.
1929 Rogowski, Bernhard Albert, 75 Whitney ave.
1932 Rothschild, Morris Loeb, 265 Church.
1928 Ruickoldt, Charles Arthur, 71 Olive.
1914 Russell, Thomas Hubbard, 57 Trumbull.
1922 Russell, Walter Irving, 317 Whalley ave.
1920 Russo, Joseph Daniel, 120 Blatchley ave.
1921 Ryder, William Harold, 195 Church.
1933 Salinger, Robert, 256 Bradley.
1910 Sanford, Charles Edwin, 265 Church.
1911 Scarbrough, Marvin McRae, 420 Temple.
1931 Scholl, Robert Frederick, 215 Whitney ave.
1924 Scott, Clifton Russell, 215 Whitney ave.
1920 Seabury, Robert Brewster, 420 Temple.
1916 Segnalla, Ernest, 613 Chapel.
1923 Serafin, Peter James, 809 State.
1928 Shay, Francis Leo, 368 Alden ave.
1923 Shea, Michael Stephen, 500 Howard ave.
1915 Sheahan, William Lawrence, 59 College.
1923 Silverberg, Samuel Joshua, 201 Park.
1913 Skiff, Stuart Ernest, 1194 Chapel.
1923 Smith, Charles Seaver, 59 College.
1914 Smith, Marvin, 356 Humphrey.
1926 Smith, Norman Nathaniel, 1558 Chapel.
1927 Snurkowski, Charles Vincent, 487 Orange.
1928 Soper, Willard Burr, 326 Fountain.
1927 Sperandeo, Anthony, 538 Chapel.
1896 Sperry, Frederick Noyes, 85 Whitney ave.
1907 Standish, Frank Billings, 193 York.
1914 Stetson, Paul Russell, 646 Dixwell ave.
1936 Stevens, Marvin Allen, 256 Bradley.
1916 Stewart, Harry Eaton, 262 Bradley.
1925 Stone, Emerson Law, 129 Whitney ave.
1920 Strauss, Maurice Jacob, 41 Trumbull.
1923 Streit, George, 289 Quinnipiac ave.
1931 Sullivan, Albert Joseph, 303 Whitney ave.
1911 Sullivan, Jeremiah Barrett, 274 Dixwell ave.
1897 Sullivan, John Francis, 1346 Chapel.
1923 Sullivan, Thomas Joseph, 495 Orange.
1886 Swain, Henry Lawrence, 195 Church.
1914 Sweet, Grover Cleveland, 1537 Chapel.
1921 Sword, Brian Collins, 16 Dwight.
1921 Tanner, Monroe Julius, 26 High.
1900 Teele, Julia Ernestine, 1151 Chapel.
1936 Thompson, Lloyd James, 333 Cedar.
1915 Thoms, Herbert, 789 Howard ave.
1911 Tileston, Wilder, 442 Temple.
1922 Toole, Frank Edward, 419 Whalley ave.
1909 Townshend, Raynham, 445 Humphrey.
1911 Tracy, Robert Graham, 493 Howard ave.
1925 Trask, James Dowling, 789 Howard ave.
1923 Tyler, Margaret, 158 Whitney ave.
1896 Verdi, William Francis, 27 Elm.
1924 Vestal, Paul William, 79 Trumbull.
1926 Wakeman, Edward Taylor, 129 Whitney ave.
1919 Weil, Arthur, 85 Whitney ave.
1924 Weiner, Joseph, 201 Park.
1902 Welch, Harry Little, 59 College.
1907 Wheatley, Louis Frederick, 420 Temple.
1916 Whiting, Leonard Clark, 121 Whitney ave.
1906 Whittemore, Edward Reed, 33 Whitney ave.
1936 Wies, Frederick Albert, 303 Whitney ave.
1931 Willmer, Otto, 420 Temple.
1935 Wilson, Hugh Monroe, 789 Howard ave.
1927 Wilson, Louise Whitman Farnam, 616 Prospect.
1931 Wilson, William Rives, 58 Trumbull.
1899 Winne, William Nelson, 1020 Whalley ave.
1921 Winternitz, Milton Charles, 310 Cedar.
1922 Winters, Sidney, 1175 Chapel.
1895 Wurtenburg, William Charles, 129 Whitney ave.

1935 Yannet, Herman, 789 Howard ave.
1924 Yavis, John Constantine, 1204 Chapel.
1920 Yudkin, Arthur Meyer, 257 Church.
1933 Zimmerman, Harry Martin, 310 Cedar.

NORTH HAVEN

1934 Miniter, John Joseph, Broadway.
1923 Taylor, Sterling Price, Broadway & Post rd.

SEYMOUR

1892 Benedict, Frank Allen, 15 Maple.
1934 Rogol, Oscar, 135 Main.

WALLINGFORD

1935 Boyarsky, Harry Morton, 60 Center.
1932 Breck, Charles Arthur, 176 N. Main.
1908 Buffum, John Harold, 145 N. Main.
1930 Carrozzella, John Christy, 50 S. Main.
1905 Lyman, David Russell, Gaylord Farm Sanatorium.
1911 McGaughey, James David, 261 Center.
1916 Morriss, William Haviland, Gaylord Farm Sanatorium.
1936 Murphy, Thomas Basil, 342 Center.
1925 Riordan, William James, 261 Center.
1919 Sheehan, Mark Thomas, 1 Williams.
1933 Wilson, George Campbell, Gaylord Farm Sanatorium.

WATERBURY

1924 Allen, Harry Everett, 30 Prospect.
1929 Atkins, Samuel Maurice, 63 Central ave.
1923 Audet, Charles Henry, 95 N. Main.
1910 Barber, Walter Lewis, Jr., 87 N. Main.
1935 Bell, Jerry Sheridan, 4 Grove.
1935 Bergin, Edward P., 48 Euclid ave.
1908 Bevans, Theodore Frank, 111 W. Main.
1931 Bizzozero, Orpheus Joseph, 20 Grove.
1910 Brennan, Patrick Joseph, 135 W. Main.
1928 Brown, Abe Solomon, 58 Central ave.
1894 Brown, Charles Henry, 57 N. Main.
1923 Ciminera, Joseph Anthony, 202 Bank.
1935 Collins, Joseph Osborn, Waterbury Hospital.
1932 Corbett, Herbert John, 14 Central ave.
1928 Cottiero, Thomas Robbins, 21 Cooke.
1907 Cowan, Isabella, 79 N. Main.
1907 Deming, Dudley Brainard, 67 Willow.
1912 Dillon, John Henry, 325 E. Main.
1927 Dreher, Alfred Charles, 171 N. Main.
1902 Dwyer, Patrick James, 95 N. Main.
1917 Dye, John Sinclair, 111 W. Main.
1927 Edlin, Charles, 24 Central ave.
1916 Egan, John Joseph, 83 Willow.
1905 Engelke, Charles, 24 Central ave.
1922 Fabricant, Samuel Elmer, 9 Cooke.
1905 Farrell, John Edward, 21 Holmes ave.
1926 Finn, Alfred Joseph, 110 Grand.
1926 Fitzpatrick, Edward Earl, 83 E. Main.
1927 Foster, John Hess, 103 N. Main.
1931 Fox, Myron Joseph, 164 W. Main.
1928 Freiheit, John Martin, 195 Grove.
1909 Gancher, Jacob, 275 N. Main.
1923 Godfrey, Edward John, 135 W. Main.
1914 Good, William Murray, 63 Center.
1894 Goodenough, Edward Winchester, 29 Ponham.
1915 Green, Jacques Henry, 171 N. Main.
1923 Hackett, John Francis, 154 Grand.
1933 Harvey, Joseph LeRoy, 222 Ledgeside ave.
1911 Herr, Edward Albert, 43 Central ave.
1930 Herrmann, Albert Edward, 101 N. Main.
1931 Hetzel, Joseph Linn, 103 N. Main.
1934 Hill, Frank Joseph, 863 Bank.
1919 Jackson, Andrew Joseph, 20 E. Main.
1929 Jackson, Edward Joseph, 76 Center.
1922 Johnson, Arthur August, 32 Willow.
1915 Johnston, Ernest H. 18 Abbott ave.
1914 Kirschbaum, Edward Harry, 20 Grove.
1922 Larkin, Charles Lewis, 101 N. Main.
1910 Lawlor, Michael Joseph, 158 N. Main.
1907 Leonard, George Arthur, 79 N. Main.
1924 Lombardi, Pasquale Frederick, 136 Willow.
1897 Maloney, Daniel Joseph, 79 N. Main.
1922 Martin, James Smith, 135 W. Main.
1930 Mason, Broadstreet Henry, Waterbury Hosp.
1916 McGrath, John Henry, 309 E. Main.
1906 McLarney, Thomas Joseph, 27 Cherry.
1925 Merriman, Merritt Heminway, 115 Prospect.
1897 Moriarity, James Ligouri, 52 Holmes ave.
1928 Morrill, Harold Frost, 300 W. Main.
1928 Mueller, Richard Albert, 287 N. Main.
1932 Mullen, John Joseph, 135 W. Main.
1929 Neuswanger, Chris Harold, 89 N. Main.
1934 O'Donnell, Thomas Francis, 20 E. Main.
1923 Platt, Irving Smith, 77 N. Main.
1901 Pomeroy, Nelson Asa, 96 Hillside ave.
1931 Pyle, Edwin, 95 N. Main.
1916 Quinn, Raymond James, 730 Baldwin.
1920 Root, James Harold, 103 N. Main.
1925 Ruby, Max Harold, 47 Prospect.
1914 Ryder, Raymond Harrison, 52 Central ave.
1931 Sandulli, Gaetano Renato, 347 N. Main.
1928 Santoro, Grace Marie, 95 N. Main.
1933 Shea, Vincent Timothy, 757 Baldwin.
1906 Smith, Egbert Livingston, 292 W. Main.
1929 Smith, Goodrich Truman, 30 W. Main.
1915 Spicer, Edmund, 292 W. Main.
1931 Staneslow, John Stanislovaitis, 95 N. Main.
1924 Stettbacher, Henry John, 28 Prospect.
1906 Swenson, Andrew Clay, 164 W. Main.
1916 Vastola, Anthony P., 99 N. Main.
1920 Webber, Edwin Russell, 95 N. Main.

WEST HAVEN

1929 Appell, Harold Seymour, 354 Campbell ave.
1935 D'Esopo, Joseph Nicholas, W. W. Winchester Hosp.
1909 Gilmore, Joseph Leo, 336 Main.
1922 Kaufman, Charles Emmanuel, 328 Main.
1904 Kowalewski, Victor Alexander, 597 Campbell ave.
1930 Milano, Nicola Antonio, 271 Elm.
1923 O'Connell, William Michael, 295 Main.
1915 Rogers, Platt Harrison, 228 Elm.
1933 Snavely, Marion Elizabeth, 546 Washington ave.
1935 Wilson, Julius Lane, W. W. Winchester Hosp.

OUT OF COUNTY

1936 Beebe, Irvin Johnson, Paonia, Colorado.
1928 Brown, Paul Hemingway, State Dept. of Health, Hartford.

1931 Dryfus, Milton Leopold, Beth. Moses Hosp., Brooklyn, N. Y.
1921 Dunham, Ethel Collins, 3312 N st., N. W., Washington, D. C.
1928 Edwards, Herbert Robert, Dept. of Health, New York City.
1933 Emery, Edgar VanNorman, 7390 Norwood ave., St. Louis, Mo.
1934 Ferguson, John Archibald, 82 Adams st., Burlington, Vt.
1892 Ferris, Harry Burr, 368 Bahia Vista ave., Sarasota, Fla. (Oct.-May); Clinton (May-Oct.).
1923 Garcia, Alphonso G., Moosup.
1896 Graves, Frederick George, Bethlehem.
1921 Greenway, James Cowan, Meads pt. Greenwich.
1931 Hennessy, James Joseph, Cedar Crest San., Hartford.
1935* Howes, Edward Lee, Howard University, Washington, D. C.
1936 Klumpp, Theodore George, Dept. of Agriculture, Food and Drug Admin., Washington, D. C.
1917 Merrill, William Truman, 66 Fuller lane, East Milton, Mass.
1926 Phelps, Winthrop Morgan, 3038 St. Paul st., Baltimore, Md.
1929 Russell, Ernest Frederick, Riven Rock, Santa Barbara, Cal.
1929 Shure, Abraham Lewis, University Hospitals, Iowa City, Iowa.
1891 Skinner, Clarence Edward, 51 Madison ave., New York City.
1935 Souther, Susan Page, State Dept. of Health, Hartford.

Total number 481

NEW LONDON COUNTY

President, WILLIAM T. DRISCOLL, M.D., 257 Main Street, Norwich.
Vice-President, THOMAS SOLTZ, M.D., 26 Main Street, New London.
Secretary, GEORGE H. GILDERSLEEVE, M.D., 310 Main Street, Norwich.
Councilor, CHARLES G. BARNUM, M.D., 230 Thames Street, Groton.

Censors
(One elected annually for a term of three years)

1934 DANIEL SULLIVAN, M.D., 58 Huntington Street, New London, *Chairman.*
1935 JAMES J. DONOHUE, M.D., 43 Broadway, Norwich.
1936 DAVID SUSSLER, M.D., 65 Main Street, Norwich.

Committee on Public Policy and Legislation
(Appointed annually by the President)

ROBERT R. AGNEW, M.D., 257 Main Street, Norwich, *Chairman.*
CHARLES G. BARNUM, M.D., 230 Thames Street, Groton.
EMANUEL A. HENKLE, M.D., 51 Federal Street, New London.

Committee on Medical Ethics and Deportment
(One appointed annually by the President for a term of five years)

1932 HAROLD W. WELLINGTON, M.D., 309 State Street, New London, *Chairman.*
1933 FREDERICK H. DART, M.D., Main Street, Niantic.
1934 THURMAN P. MAINE, M.D., 64 Washington Street, Mystic.
1935 LEONE F. LAPIERRE, M.D., 287 Main Street, Norwich.
1936 DANIEL SULLIVAN, M.D., 58 Huntington Street, New London.
GEORGE H. GILDERSLEEVE, M.D., 310 Main Street, Norwich, *Recorder.*

Committee on Medical Economics
(Appointed annually by the President)

FRANK M. DUNN, M.D., 100 State Street, New London, *Chairman.*
CHARLES G. BARNUM, M.D., 230 Thames Street, Groton.
ELLIS K. DEVITT, M.D., Lyme.
GEORGE H. GILDERSLEEVE, M.D., 310 Main Street, Norwich.
THURMAN P. MAINE, M.D., 64 Washington Street, Mystic.

Committee on Emergency Unemployment Medical Relief
(Appointed annually by the President)

GROEGE H. GILDERSLEEVE, M.D., 310 Main Street, Norwich, *Chairman.*
CHARLES G. BARNUM, M.D., 230 Thames Street, Groton.
EDWARD J. BROPHY, M.D., 10 Shetucket Street, Norwich.
HAROLD W. WELLINGTON, M.D., 309 State Street, New London.

Annual Meeting, First Thursday in April.
Semi-Annual Meeting, First Thursday in October.

COLCHESTER

1935 Friedman, Irving, 15 Hayward ave.
1913 Howland, Edward Joseph, S. Main.
1921 Pendelton, Cyrus Edmund.

EAST LYME

NIANTIC

1906 Atkinson, Edward, Main.
1887 Dart, Frederick Howard, 61 Main.
1934 Jameson, Rose Howe, State Farm for Women.
1934 MacLeod, Edith Alice, State Farm for Women.
1936 Ward, Lawrence Shapiro.

GRISWOLD

JEWETT CITY

1916 McLaughlin, John Henry, 37 Main.
1934 O'Neill, Martin Leo, 8 Park sq.

GROTON

1916 Barnum, Charles Gardiner, 230 Thames.
1918 Douglass, Edmund Latham, 188 Thames.
1934 Hewes, Carlisle Tyson, 242 Thames.

NOANK

1904 Hill, William Martin, Church.

LEDYARD

GALE'S FERRY

1898 Douglass, Edmund Peaslee, Long Cove.

LYME

1909 Devitt, Ellis King.

MONTVILLE

UNCASVILLE

1915 Donohue, John James.
1936 Lubchansky, Jacob Harris.
1929 Rasmussen, Hans Norman.

NEW LONDON

1933 Baron, Shirley Harold, 309 State.
1933 Becker, Joseph, 325 State.
1928 Blank, Eric Henry, 240 Williams.
1933 Brosnan, John Francis, 34 Huntington.
1927 Burdsall, Elijah Sylvester, 187 Williams.
1916 Cheney, George Philip, 179 Montauk ave.
1936 Comstock, Edward Richard, 106 State.
1909 Dunn, Frank Martin, 100 State.
1931 Dyer, Charles Edward, 102 Montauk ave.
1927 Ely, Julian Griffin, 41 Huntington.
1936 Ferguson, Helen Knox, 508 Montauk ave.
1906 Ganey, Joseph Matthew, 205 Williams.
1934 Gipstein, Edward, 58 Huntington.
1907 Harrington, James Leon, 231 State.
1922 Hendel, Isadore, 50 State.
1902 Henkle, Emanuel Alex, 51 Federal.
1934 Henkle, Robert Theodore, 51 Federal.
1895 Heyer, Harold Hankinson, 70 Coit.
1936 Itzkowitz, Hyman, 325 State.
1921 Kaufman, Charles, 308 State.
1924 Labensky, Alfred, 85 Federal.
1909 Lawson, Stuart Johnston, 116 Federal.
1921 Lena, Hugh Francis, 154 Broad.
1931 Loiacono, Anthony Joseph, 325 State.
1935 Ludlow, George Craig, 39 Glenwood ave.
1934 Morse, Willard Jackson, 32 Channing.
1921 Murray, Thomas J., 34 Huntington.
1932 Rabinovitch, Alec., 309 State.
1936 Rapp, Albert Grant, 325 State.
1929 Satti, Charles John, 36 Huntington.
1933 Scoville, Dorothea Haven, 40 Channing.
1914 Smail, Martin Lawson, 85 State.
1921 Soltz, Thomas, 26 Main.
1929 Starr, Richard Mallory, 45 Huntington.
1904 Sullivan, Daniel, 58 Huntington.
1899 Taylor, John Clifton, 159 State.
1933 Taylor, Robert Nelson, 159 State.
1925 Warren, Hill Freeman, 100 State.
1922 Wellington, Harold Wentworth, 309 State.
1935 Wies, Carl Hendricks, 58 Huntington.
1913 Wilson, Frank Emery, 302 State.
1920 Woodruff, Thomas Adams, 309 State.

NORWICH

1910 Agnew, Robert Robertson, 296 Washington.
1908 Brophy, Edward Joseph, 10 Shetucket.
1916 Callahan, John William, 308 Main.
1915 Campbell, Hugh Baird, "Uncas-on-Thames".
1935 Carr, Vanderveer Tabor, State Hospital.
1934 Carson, Robert James, State Hospital.
1935 D'Elia, Arthur Joseph, State Hospital.
1925 Dixon, Henry Campbell, 16 Franklin.
1897 Donohue, James Joseph, 43 Broadway.
1916 Driscoll, William Thomas, 257 Main.
1916 Freeman, Albert Clark, 54 Broadway.
1898 Gildersleeve, Charles Child, 310 Main.
1927 Gildersleeve, George Harold, 310 Main.
1932 Ginsburg, Samuel, State Hospital.
1922 Gray, Harrison, 257 Main.
1935 Hale, Virginia Anne, State Hospital.
1935 Higgins, Harold William, 120 W. Thames.
1898 Higgins, Harry Eugene, 257 Main.
1914 LaPierre, Arnaud Julian, 287 Main.
1907 LaPierre, Leone Franklin, 287 Main.
1935 Lukoski, Walter Anthony Francis, 16 Franklin.
1936 Mahoney, Joseph John, 105 Main.
1922 Manwaring, Ier Jay, East Great Plains.
1922 Markoff, Kopland Karl, 16 Franklin.
1934 Morse, Lyman Roger, "Uncas-on-Thames".
1935 Neumann, Virgil Frank, "Uncas-on-Thames".
1935 O'Connell, Patrick Henry, 287 Main.
1933 Ogden, Arthur White, State Hospital.
1936 Osgood, Charles, 257 Main.
1934 Quintiliani, Albert, 43 Broadway.
1930 Raymer, John George, 40 Shetucket.
1930 Ricksher, Charles, State Hospital.
1936 Riendeau, Pauline Laure, P. O. Box 476.
1935 Sears, Lewis, 257 Main.
1929 Suplicki, John William, 255 Main.
1921 Sussler, David, 65 Main.
1925 Thompson, Clarence George, 257 Main.
1891 Thompson, George, 57 Lincoln ave.
1931 Urquhart, Robert Glen, "Uncas-on-Thames".
1934 Waterman, Chester, State Hospital.
1935 Weidman, William Harold, "Uncas-on-Thames".
1932 Wener, William Victor, 130 Main.
1933 Whitty, Charles Aloysius, "Uncas-on-Thames".

TAFTVILLE

1933 Archambault, Henry Allard, 2 N. Second ave.
1935 Bergendahl, Harold Andrew, 1 S. Second ave.

OLD LYME

BLACK HALL

1932 Griswold, Matthew.

STONINGTON

1934 Haliday, Earle George, 168 Water.
1934 Veal, William Thomas, 99 Water.
1912 *Williams, Charles Mallory, 174 Water.

MYSTIC

1907 Allyn, Louis Maxson, 22 Library.
1894 Gray, William Henry, 27 Willow.
1928 Hill, Edward Roland, 17 E. Main.
1932 Leon, Abraham Joseph, 31 New London rd.
1915 Maine, Thurman Park, 64 Washington.
1921 Stillman, Charles Kirtland, 53 Greenmanville ave.

WATERFORD

1913 O'Brien, John Francis, "The Seaside".
1931 Thompson, Lawrence Everett, "The Seaside".

Total number 118

TOLLAND COUNTY

President, JOHN M. GIVENS, M.D., 54 East Main Street, Stafford Springs.

Secretary, FRANCIS H. BURKE, M.D., 27 Park Street, Rockville.

Councilor, CHARLES T. LAMOURE, M.D., State Training School and Hospital, Mansfield Depot.

Censors
(One elected annually for a term of three years)
1934 Francis McL. Dickinson, M.D., 38 Elm Street, Rockville, *Chairman.*
1935 John P. Hanley, M.D., 15 Church Street, Stafford Springs.
1936 Elliott H. Metcalf, M.D., 50 Elm Street, Rockville.

Committee on Public Policy and Legislation
(Appointed annually by the President)
Francis H. Burke, M.D., 27 Park Street, Rockville, *Chairman.*
Roy C. Ferguson, M.D., 57 Union Street, Rockville.
Harry H. Moore, M.D., 46 East Main Street, Stafford Springs.

Committee on Medical Ethics and Deportment
(Councilor and one appointed annually by the President for a term of five years)
Charles T. LaMoure, M.D., State Training School and Hospital, Mansfield Depot, *Councilor.*
1932 Elliott H. Metcalf, M.D., 50 Elm Street, Rockville, *Chairman.*
1933 Francis McL. Dickinson, M.D., 38 Elm Street, Rockville.
1934 Ralph B. Thayer, M.D., Main Street, Somers.
1935 William Schneider, M.D., 34 Union Street, Rockville.
1936 Frank B. Converse, M.D., West Willington.
Francis H. Burke, M.D., 27 Park Street, Rockville, *Recorder.*

Committee on Medical Economics
(Appointed annually by the President)
Charles T. LaMoure, M.D., State Training School and Hospital, Mansfield Depot, *Chairman.*
John E. Flaherty, M.D., 42 Elm Street, Rockville.
Thomas F. O'Loughlin, M.D., 51 Elm Street, Rockville.
Alfred Schiavetti, M.D., 107 Main Street, Stafford Springs.
Ralph B. Thayer, M.D., Main Street, Somers.

Committee on Emergency Unemployment Medical Relief
(Appointed annually by the President)
Roy C. Ferguson, M.D., 57 Union Street, Rockville, *Chairman.*
George P. Bard, M.D., 53 East Main Street, Stafford Springs.
Francis H. Burke, M.D., 27 Park Street, Rockville.
Frank B. Converse, M.D., West Willington.
Annual Meeting, Third Tuesday in April.
Semi-Annual Meeting, Third Tuesday in October.

COVENTRY
South Coventry
1891 Higgins, William Lincoln.

MANSFIELD
Mansfield Depot
1934 Clow, Henry Leon, State Training School and Hospital.
1934 Fenimore, Benjamin Bertram, State Training School and Hospital.
1930 Hankins, Melissa Millner, State Training School and Hospital.
1918 LaMoure, Charles TenEyck, State Training School and Hospital.

SOMERS
1921 Thayer, Ralph Bruce, Main.

STAFFORD
Stafford Springs
1928 Bard, George Percival, 53 E. Main.
1934 Givens, John McClure, 54 E. Main.
1908 Hanley, John Patrick, 15 Church.
1921 Moore, Harry H., 46 E. Main.
1935 Schiavetti, Alfred, 107 Main.

VERNON
Rockville
1933 Burke, Francis Henry, 27 Park.
1908 Dickinson, Francis McLean, 38 Elm.
1923 Ferguson, Roy Cameron, 57 Union.
1918 Flaherty, John Edward, 42 Elm.
1921 Metcalf, Elliott Harrison, 50 Elm.
1897 O'Loughlin, Thomas Francis, 51 Elm.
1931 Schneider, William, 34 Union.

WILLINGTON
West Willington
1928 Converse, Frank Benjamin.

OUT OF COUNTY
1931 Aiken, Sidney, Cor. Main & E. Centre sts., Manchester.
1929 Salmond, Paul Hammersley, Stamford Hall, Stamford.

Total number 21

WINDHAM COUNTY
President, Warren A. Tanner, M.D., 36 Academy Street, Danielson.
Vice-President, Brae Rafferty, M.D., 29 North Street, Willimantic.
Secretary, Cecil R. Garcin, M.D., 7 Broad Street, Danielson.
Councilor, Robert C. Paine, M.D., Thompson.

Censors
(One elected annually for a term of three years)
1934 Robert C. Paine, M.D., Thompson, *Chairman.*
1935 Frank P. Todd, M.D., 178 Main Street, Danielson.
1936 Edward J. Ottenheimer, M.D., 29 North Street, Willimantic.

Committee on Public Policy and Legislation
(Elected annually)
Joseph A. Girouard, M.D., 19 Union Street, Willimantic, *Chairman.*
Joseph A. LaPalme, M.D., 158 Main Street, Putnam.
William Mac Shepard, M.D., Savings Bank Building, Putnam.

Committee on Medical Ethics and Deportment
(Two appointed annually by the President for a term of three years)
1935 Robert C. Paine, M.D., Thompson, *Chairman.*
1935 Karl T. Phillips, M.D., Savings Bank Building, Putnam.
1934 Joseph A. Girouard, M.D., 19 Union Street, Willimantic.

1934 Edward J. Ottenheimer, M.D., 29 North Street, Willimantic.
1936 Arthur A. Chase, M.D., Railroad Avenue, Plainfield.
1936 Kenneth K. Kinney, M.D., 29 North Street, Willimantic.
Cecil R. Garcin, M.D., 7 Broad Street, Danielson, *Recorder.*

Committee on Medical Economics
(Elected annually)
Florence F. Dean, M.D., 32 South Main Street, Putnam, *Chairman.*
Brae Rafferty, M.D., 29 North Street, Willimantic.

Committee on Emergency Unemployment Medical Relief
(Appointed annually by the President)
Kenneth K. Kinney, M.D., 29 North Street, Willimantic, *Chairman.*
Joseph A. Girouard, M.D., 19 Union Street, Willimantic.
Edward J. Ottenheimer, M.D., 29 North Street, Willimantic.
Karl T. Phillips, M.D., Savings Bank Building, Putnam.
Michael D. Riordan, M.D., 29 North Street, Willimantic.
William Mac Shepard, M.D., Savings Bank Building, Putnam.
Frank P. Todd, M.D., 178 Main Street, Danielson.
Annual Meeting, Third Thursday in April.
Semi-Annual Meeting, Third Thursday in October.

CANTERBURY

1936 Baldwin, Helen.

HAMPTON

1914 Marsh, Arthur Drought.

KILLINGLY

Danielson

1935 Chartier, Gerard Marcel, 136 Main.
1933 Fontaine, Alphonse, 4 Spring.
1928 Garcin, Cecil Redvers, 7 Broad.
1909 Perreault, Joseph Napoleon, 43 Main.
1919 Tanner, Warren Avery, 36 Academy.
1920 Todd, Frank Paige, 178 Main.

PLAINFIELD

1903 Chase, Arthur Alverdo, Railroad ave.
1933 Gulino, Angelo James.

PUTNAM

1934 Chapnick, Morton Herman, 168 Main.
1930 Dean, Florence Franklin, 32 S. Main.
1927 LaPalme, Joseph Antonio, 158 Main.
1919 Murphy, Bernard Patrick, 205 Main.
1921 Phillips, Karl Tristram, 66 Main.
1922 Russell, John J., Bridge & Main.
1934 Shepard, William Mac, 66 Main.

THOMPSON

1903 Paine, Robert Child.

NORTH GROSVENORDALE

1936 Roy, Joseph Lambert.

WINDHAM

Willimantic

1935 Arnold, Morton, 781 Main.
1901 Girouard, Joseph Arthur, 19 Union.
1913 Jenkins, Charles Albert, 715 Main.
1928 Kinney, Kenneth Kyle, 29 North.
1925 Ottenheimer, Edward Joseph, 29 North.
1932 Rafferty, Francis Brae, 807 Main.
1916 Riordan, Michael Davitt, 29 North.
1936 Roch, George Emile, 33 Church.
1914 Smith, Fred Morse, 736 Main.
1929 Spector, Nathan, 33 Church.
1935 Vernon, Sidney, 784 Main.

WOODSTOCK

East Woodstock

1913 Pike, Ernest Reginald.

OUT OF COUNTY

1910 Downing, Francis, Lerou Bldg., Norwich.
1883 Foster, Warren Woden, 4000 Cathedral ave., Washington, D. C.
1932 Gilman, Ralph Lawrence, Storrs.
1896 Hills, Laura Heath, Lebanon.
1908 Keating, William Patrick Stuart, Soldiers' Hospital, Noroton Heights.

Total number 36

SUMMARY

Fairfield County	292
Hartford County	467
Litchfield County	66
Middlesex County	70
New Haven County	481
New London County	118
Tolland County	21
Windham County	36
Total	1551

Alphabetical Roll of Members

With date and place of graduation.

Aaronson, M. S., Univ. & Bellevue, '13, Ansonia.
Abbey, E. A., B.A., Mt. St. Mary's, '26, Georgetown, '30, New Haven.
Adam, F. S., Ph.B., Boston U., '21, Yale, '25, Canaan.
Adzima, J. M., Univ. Md., '27, Bridgeport.
Affinito, T., B.S., Yale, '26, McGill,' 31, Meriden.
Agnew, R. R., Yale, '08, Norwich.
Aiken, S., Toronto, U., '29, Manchester (Tolland Co.)
Alderman, I. S., Ph.B., Yale, P. & S., N. Y., '19, New Haven.
Allen, E. P., B.A., Lebanon Valley (Pa.) Coll., '20, Yale, '24, New Haven.
Allen, H. E., B.A., Bowdoin, '15, Bowdoin, '19, Waterbury.
Allen, H. S., Yale, '04, Woodbury.
Allen, M. F., Med. Chi., Phila., '95, New Haven.
Allen, W. M., B.A., Haverford, '16, Johns Hopkins, '20, Hartford.
Alling, A. N., B.A., Yale, '86, P. & S., N. Y., '91, New Haven.
Allyn, L. M., Univ. Pa., '93, Mystic.
Alpert, M., B.S., Yale, Yale, '28, Bridgeport.
Alpert, R. H., Yale, '13, New Haven.
Amatruda, F. G., B.A., Yale, '20, Yale, '23, New Haven.
Amos, I. L., McGill, '26, Danbury.
Amoss, H. L., B.S., Univ. Ky., '05; M.S., Univ. Ky., '07; D.P.H., Harvard, '12; Sc.D. (Hon.), Geo. Wash., '22, Harvard, '11, Greenwich.
Andrus, O. B., B.A., Dartmouth, '28, Univ. & Bellevue, '32, Devon.
Angus, L. R., B.A., Toronto, '25, Toronto U., '28, Hartford.
Antell, M. J., B.S., Middlebury, '25, Univ. Vt., '29, Bridgeport.
Antupit, L., B.S., Trinity, '19, Jefferson, '23, Hartford.
Appell, H. S., Tufts, '27, West Haven.
Appell, P. H., Univ. & Bellevue, '23, Bristol.
Apsel, A., Ph.G., Brooklyn Coll. Phar., '13, L. I. Coll. Hosp., '18, Bridgeport.
Apter, H., B.A., Geo. Wash., '31, Geo. Wash., '34, Hartford.
Archambault, H. A., Tufts, '27, Taftville.
Armstrong, G. G., U. City N. Y., '91, Middletown.
Arnold, H. B., B.A., Yale, '23, Yale, '26, New Haven.
Arnold, H. S., B.A., Yale, '00, Yale, '03, New Haven.
Arnold, M., B.A., Harvard, '25, Harvard, '29, Willimantic.
Arons, M.R., Ph.B., Yale, '25, Univ. Md., '30, Hartford.
Atkins, S. M., Tufts, '22, Waterbury.
Atkinson, E., Univ. Vt., '93, Niantic.
Audet, C. H., Univ. Md., '17, Waterbury.
Austin, A. E., B.A., Amherst; M.A., Amherst, '04, Jefferson, '05, Old Greenwich.
Axtelle, J. F., L. I. Coll. Hosp., '78, Wallingford (Hartford Co.).
Backer, M., Yale, '24, Bridgeport.
Backus, H. S., L. I. Coll. Hosp., '03, Hartford.
Bacon, L. W., B.A., Yale, '88, Yale, '92, New Haven.
Bailey, H., B.A., Yale, '19, Univ. Md., '22, Hartford.
Bailey, N. H., P. & S., Balt. ,'11, Hartford.
Baldwin, C. T., Bellevue, '83, Derby.
Baldwin, H., B.A., Wellesley, '88, Wom. Med., N. Y., '92, Canterbury.
Baldwin,W. P., B.A.,Yale, '88, Yale, '90, N. Y. Homeo, '91, New Haven
Bancroft, H. A., Albany Med., '16, Hartford.
Banks. D. T., Fordham, '12, Bridgeport.
Bannon, F. M., Univ. Vt., '28, Stamford.
Barber, W. L., Jr., B.A., Yale, '03, Univ. & Bellevue, '07, Waterbury.
Bard, G. P., N. Y. Homeo, '00, Stafford Springs.
Barker, A. J., Bellevue, '97, Torrington.
Barker, C., Dartmouth, '13, New Haven.
Barnes, F. H., N. Y. Homeo, '96, Stamford.
Barnes, W. S., Ph.B., Yale, '95, Yale, '97, New Haven.
Barnum, C. G., B.A., Middlebury Coll., '05; M.A., Middlebury Coll. '07, Yale, '11, Groton.
Baron, S. H., Cornell, '27, New London.
Barrett, W. J., Md. Med., '04, New Haven.
Bartlett, C. J., B.A., Yale, '92; M.A., Yale, '94, Yale, '95, New Haven.
Bassin, A. L., Rochester, '30, New Haven.
Batelli, C. F., B.A., Yale, '25, Yale, '28, New Haven.
Battista, A. W., Tufts, '24, New Haven.
Bausch, C. P., Tufts, '29, Hartford.
Bayne-Jones, S., B.A., Yale, '10; M.A., Johns Hopkins, '17, Johns Hopkins, '14, New Haven.
Beach, C. C., Ph.B., Yale, '77, P. & S., N. Y., '82, Hartford.
Beach, C. T., Yale, '05, Hartford.
Beatman, I., B.S., Trinity, '23, Tufts, '27, Hartford.
Beatrice, A. A., Tufts, '29, Bristol.
Beauchemin, J. A., Montreal U., '25, Middletown.
Beaudry, J. H., McGill, '13, Bridgeport.
Beck, E. C., Yale, '26, So. Norwalk.
Beck, F. G., Yale, '03, New Haven.
Becker, J., B.S., N. Y. U., '26, Univ. & Bellevue, '29, New London.
Beebe, I. J., Ph.B., Yale, '28, Yale, '32, Colorado (New Haven Co.)
Behan, E. J., McGill, '22, New Haven.
Beizer, E., B.A., Harvard, '25, L. I. Coll. Hosp., '30, Hartford.
Bell, G. N., Yale, '92, Hartford.
Bell, J. S., Ph.G., Valparaiso, '14, Loyola, '18, Waterbury.
Benedict, F. A., P. & S., N. Y., '87, Seymour.
Benedict, M. K., Johns Hopkins, '19 New Haven.
Benoit, R. J., Georgetown, '26, New Britain.
Bergendahl, H. A., Tufts, '33, Taftville.
Bergin, E. P., B.A., Georgetown, '27, Georgetown, '31, Waterbury.
Bergin, T. J., Yale, '99, Cos Cobb.
Bergman, A., B.S., Stockholm, '89, U. City N. Y., '95, New Haven.
Berman, H. L., B.A., Yale, '13, Yale, '15, New Haven.
Bernstein, A., Yale, '08, Bridgeport.
Bernstein, D. J., B.S., Univ. Vt., '30, Univ. Vt., '33, Hartford.
Bestor, E. L., N. Y. Homeo, '07, Hartford.
Bevans, T. F., Univ. Minn., '03, Waterbury.
Bidgood, C. Y., B.S., Univ. Va., '19, Univ. Va., '20, Hartford.
Biehn, S. L., B.S., Toronto, U., '26, Fairfield.
Bingham, C. T., B.A., Yale, '28, P. & S., N. Y., '32, Hartford.
Biram, J. H., Cornell, '10, Hartford.
Bird, F. S., B. S. Univ. Vt., '30, Univ. Vt., '33, Bristol.
Birdsong, J. L., B.S., Nashville U., '99, Johns Hopkins, '09, Hartford.
Bissell, A. H., Litt.B., Princeton, '12, Cornell, '16, Stamford.
Bizzozero, O. J., B.S., Univ. Vt., '24, Univ. Vt., '27, Waterbury.
Black, J. E., Ph.B., Yale, '03, Yale, '08, Shelton.
Blair, E. H., P. & S., Balt., '06, Hartford.
Blake, E. M., Yale, '06, New Haven.
Blake, F. G., B.A., Dartmouth, '08, Harvard, '13, New Haven.
Blanchard, D. L., B.S., Bowdoin, '27, Yale, '25, Branford.
Blank, E. F., Starling, '97, Bridgeport.
Blank, E. H., Univ. Vt., '25, New London.
Blodinger, I. E., Ph.B., Yale, '22, Yale, '25, New Haven.
Blogoslawski, W. J., Georgetown, '27, New Britain.
Blum, M., Tulane, '25, New Haven.
Blumenthal, E. J., B.S., Yale, '28, L. I. Coll., '32, Ansonia.
Blumer, G., M.A., Yale, '07, Cooper, '91, New Haven.
Boardman, A. K., Univ. Pa., '99, New Haven.
Boardman, E. I., B.A., Smith, '15, Cornell, '20, New Haven.
Bodie, J. A., Tufts, '24, New Haven.
Bodie, W. J., Georgetown, '29, Branford.
Bodley, G. H., Yale, '07, New Britain.
Bogin, M., B.S., Yale, '23, Yale, '26, Bridgeport.
Bonoff, Z. A., Yale, '04, New Haven.
Booe, J. G.,·B.A., '16, B.S., '17, Wake Forest Coll., N.C., Med. Coll. Va., '19, Bridgeport.
Booth, J. D., B.S., Dartmouth, P. & S., N. Y., '26, Danbury.
Borkowski, B. J., Georgetown, '28, Bristol.
Botsford, C. P., Yale, '94, Hartford.

Bowman, S. H., Hahn, Chicago, '13, Stamford.
Boyarsky, H. M., B.S., Tufts, '28, Tufts, '31, Wallingford.
Boyce, R. V., Univ. Vt., '13, Hartford.
Boyd, H., B.S., Allegheny Coll., '15, Harvard, '21, South Manchester.
Brackett, A. S., B.A., Yale, '92, Jefferson, '95, Bristol.
Bradeen, F. B., Univ. Pa., '99, Essex.
Bradley, T. R., Univ. Md., '14, South Norwalk.
Brainard, C. B., Ph.B., Yale, '94, Yale, '98, Hartford.
Branon, A. W., Jefferson, '13, Hartford.
Brayton, H. W., Ph.B., Brown, '06, Harvard, '11, Hartford.
Breck, C. A., Ph.B., Yale, '26, Yale, '30, Wallingford.
Brecker, F. W., Tufts, '28, East Hartford.
Brennan, P. J., Yale, '07, Waterbury.
Breslin, J. E., Ph.B., Brown, '21, Johns Hopkins, '25, Boston, Mass., (Hartford Co.).
Bretzfelder, K. B., Jefferson, '16, New Haven.
Brewer, T. F., Yale, '26, Hartford.
Bridge, J. L., B.S., Wesleyan, '88; Ph.D., Clark, '94, Harvard, '03, Hazardville.
Bristoll, D. A., B.A., Hamilton, '23, Univ. Pa., '27, New Britain.
Brodsky, M. E., B.A., Clark, '19, Northwestern, '26, Bridgeport.
Brody, B. S., B.A., Yale, '25, Yale, '28, New Haven.
Bronson, W. T., N. Y. U., '98, Danbury.
Brophy, E. J., Yale, '04, Norwich.
Brosnan, J. F. Tufts, '30, New London.
Brown, A. S., B.A., Yale, '23, Yale, '26, Waterbury.
Brown, C. H., U. City N. Y., '93, Waterbury.
Brown, D. C., Yale, '81, Danbury.
Brown, P. H., Univ. Vt., '26, Hartford (New Haven Co.).
Bryon, B. A., Bellevue, '90, Norwalk.
Bucciarelli, J. A., Temple, '31, New Canaan.
Buck, B. J., B.A., Colgate, '22, Harvard, '26, Hartford.
Buckley, R. C., B.S., Trinity, '20, Yale, '24, Hartford.
Buckmiller, F. C., Univ. Vt., '14, Bridgeport.
Budau, J. H. D., Yale, '00, Milford.
Buel, J. L., P. & S., N. Y., '88, Litchfield.
Buffum, J. H., Ph.B., Univ. Vt., '96, Univ. Vt., '98, Wallingford.
Bull, J. N., P. & S., N. Y., '78, Plainville.
Bull, T. M., P. & S., N. Y., '87, Naugatuck.
Bumstead, J. H., B.A., Yale, '19, Johns Hopkins, '23, New Haven.
Bunnell, W. W., B.S., Lafayette, '25, Yale, '29, Farmington.
Buol, R. S., B.S., Univ. Mich., '21, Harvard, '23, New Britain.
Burdsall, E. S., Hahn, Phila., '11, New London.
Burgdorf, A. L., B.S., Chicago, '27, Rush, '31, Hartford.
Burke, F. H., B.S., Georgetown, '29, Georgetown, '31, Rockville.
Burke, W., L. I. Coll. Hosp., '96, Greenwich.
Burlingame, C. C., Hahn, Chicago, '08, Hartford.
Burns, G. D., Yale, '25, Derby.
Burr, N. A., Yale, '01, South Manchester.
Butler, N. G., Tufts, '24, Hartford.
Byrne, D. W., B.A., Wesleyan, '23, P. & S., N. Y., '27, Hartford.
Caldwell, D. M., McGill, '19, South Manchester.
Caldwell, W. E., Balt. Med., '94, Suffield.
Callahan, J. W., P. & S., Balt., '11, Norwich.
Calverley, E. J. T., Wom. Med., Pa., '08, Hartford.
Calvin, C. V., Harvard, '16, Bridgeport.
Campbell, H. B., Univ. Pa., '09, Norwich.
Campbell, S., Univ. Vt., '23, Meriden.
Canfield, N., B.S., Dartmouth, '25, Univ. Mich., '29, New Haven.
Cantarow, D., Tufts, '11, Hartford.
Capecelatro, A., Tufts, '19, New Haven.
Caplan, H., Yale, '27, Meriden.
Cappiello, S., Tufts, '19, Hartford.
Carelli, G. F., Yale, '11, New Haven.
Carey, T. C., B.S., Trinity, '24, Yale, '28, Hartford.
Carlin, C. H., Univ. Mich., '96, Torrington.
Carniglia, E. F., B.A., Harvard, '25, Harvard, '29, Hartford.
Carpenter, R. M., Loyola, '16, Stamford.
Carr, V. T., Hahn, Chicago, '07, Norwich.
Carroll, F. P., B.S., Trinity, '10, Johns Hopkins, '14, Bridgeport.
Carroll, J. E., B.S., Colgate, '21, Boston, U. '25, Hartford.
Carroll, P. R., Jr., Georgetown, 29, Bridgeport.
Carroll, W. E., B.A., Dartmouth, '11, Dartmouth, '14, Meriden.
Carrozzella, J. C., B.S., Yale, '21, L. I. Coll. Hop., '28, Wallingford.
Carson, R. J., Toronto, U., '23, Norwich.
Carter, E. B., Ph.B., Yale, '07, Johns Hopkins, '11, Hartford.
Carver, J. P., Albany Med., '96, Simsbury.
Case, E. P., PhD., Lafayette, '05, Univ. Mich. Homeo., '11, West Hartford.
Caulfield, E. J., Johns Hopkins, '20, Hartford.
Celentano, L. E. H., B.S., Trinity, '24., Hahn. Phila., '30, New Haven.
Cenci, V. P., Tufts, '29, Hartford.
Chaffee, J. S., Ph.B., Yale, '94, Unv. Pa., '97, Sharon.
Chalmers, H. E., Tufts, '06, New Britain.
Chapnick, M. H., B.S., M.S., Trinity, Jefferson, '32, Putnam.
Chartier, G. M., B.A., Assumption, '29, Boston U., '33, Danielson.
Chase, A. A., Harvard, '01, Plainfield.
Chase, C. C. Univ. Vt., '24, Middletown.
Cheney, B. A., B.A., Yale, '88, Yale, '90, New Haven.
Cheney, G. P., Md. Med., '13, New London.
Cheney, M. L., Univ. Vt., '17, Bridgeport.
Chernaik, S. J., Jefferson, '16, New Britain.
Childs, A. E., U. City N. Y., '96, Litchfield.
Chillingworth, F. P., Yale, '07, Boston, Mass. (Middlesex Co.).
Chipman, S. S., B.A., Acadia, '24, McGill, '28, Norwalk.
Ciminera, J. A., Univ. Vt., '16, Waterbury.
Claiborn, L. N., Washington, '27, New Haven.
Clark, J. B., P. & S., N. Y., '98, Greenwich.
Clarke, J. A., Bellevue, '97, Greenwich.
Clarke, R. deB., B.A., N. Y. U., '04, Johns Hopkins, '08, Hartford.
Clason, F. P., B.A., Bates, '11, Harvard, '15, Hartford.
Cleary, H. J., Tufts, '29, Watertown.
Clifton, H. C., Univ. Pa., '01, Hartford.
Climan, M., B.A., Yale, P. & S., N. Y., '15, Hartford.
Climo, S., B.S., Ohio State, '29, Ohio State, '29, New Haven.
Cloonan, J. J., P. & S., Balt., '97, Stamford.
Close, J. F., B.A., Colgate, '21, P. & S., N. Y., '25, Greenwich.
Clow, H. L., Tufts, '14, Mansfield Depot.
Cobb, A. E., Yale, '98, Canaan (Hartford Co.).
Cobey, J. F., Ph.B., Yale, '12, Yale, '16, New Haven.
Cochran, L. B., Univ. Pa., '93, Hartford.
Coffey, J. R., B.A., Yale, '03, Yale, '07, New Haven.
Cofrances, L. W., Jefferson, '23, New Haven.
Cogan, G. E., B.S., Georgetown, '21, Georgetown, '23, Hartford.
Cogswell, E. S., Harvard, '12, Hartford.
Cogswell, L. P., A.B., Univ. Maine, '27, Harvard, '33, Hartford.
Cohane, J. J., Yale, '98, New Haven.
Cohane, T. F., Yale, '97, New Haven.
Cohen, J., B.A., Coll. City N. Y., '94, Eclectic, N. Y., '09, Bridgeport.
Cohen, W., Ph.B., Yale, '20, Yale, '23, New Haven.
Coleburn, A. B., Ph.G., N. Y. Coll. Phar., '84, P. & S., N. Y., '90, Norwalk (Middlesex Co.).
Collins, J. O., Baylor, '29, Waterbury.
Collins, W. F., Yale, '04, New Haven.
Colomb, H. O., Tulane, '23, Middletown.
Colwell, H. S., B.S., Colgate, '10, Johns Hopkins, '14, New Haven.
Comfort, C. W., Jr., B.A., Yale, '07, Yale, '11, New Haven.
Compson, F. E. M., B.A., Geo. Wash., '19, Boston U., '20, Middletown.
Comstock, E. R., B.S., Tufts, '30, Tufts, '33, New London.
Comstock, F. W., Tufts, '13, New Haven.
Conklin, C. S., Fordham, '16, Bridgeport.
Connolly, A. J., B.S., Georgetown, '24, Georgetown, '28, New Haven.
Connor, J. J., B.S., Trinity, '26, Yale, '30, Hartford.
Connors, E. R., Boston U., '31, Bridgeport.
Conroy, M. J., B.A., Yale, '18, Yale, '20, Meriden.
Conte, H. A., L. I. Coll. Hosp., '12, New Haven.
Converse, F. B., Eclectic, Cinn., '94, West Willington.
Cook, G. F., Tufts, '23, Plainville.
Cook, R. J., B.A., Iowa, '09, Johns Hopkins, '13, New Haven.
Cooley, C. M., Yale, '08, New Britain.
Corbett, H. J., Tufts, '29, Waterbury.
Corcoran, M. A., Tufts, '30, Hartford.
Corey, W. VanA., Geo. Wash., '33, Hamden.
Cornelio, F. J., B.S., Niagara, '30, Georgetown, '34, Winsted.
Corradino, C. L., Tufts, '29, New Haven.
Costello, H. N., B.A., Yale, '06, Johns Hopkins, '10, Hartford.
Cotterio, T. R., B.S., Yale, '26, Waterbury.
Couch, A. R., B.A., Amherst, '01, N. Y. Homeo, '05, Hartford.
Couch, F. H., B.A., Harvard, '27, Yale, '30, Cromwell.
Couch, M. W., B.A., Smith, '18, Univ. Minn., '27, Cromwell.
Cowan, I., Wom. Med., N. Y., '92, Waterbury.
Cox, R. B., McGill, '02, Collinsville.
Coyle, A. E. M., Wom. Med., Pa., '12, Windsor Locks (Fairfield Co.).
Cragin, D. B., Harvard, '02, Hartford.

Craig, D. A., McGill, '08, Torrington.
Craig, G. M., B.S., Wesleyan, '16, Harvard, '20, Middletown.
Crane, R. W., Yale, '05, Stamford.
Cranz, A. H., B.S., Brussels, '10, Tufts, '18, Belgium (Hartford Co.).
Crawley, G. A., Temple, '28, West Hartford.
Creadick, A. N., B.A., Univ. Pa., Univ. Pa., '08, New Haven.
Creaturo, N. E., B.A., Columbia, '28, Boston U., '31, Bridgeport.
Crook, J. B., N. Y. Homeo, '13, East Haddam.
Crosby, E. H., B.A., Amherst, '24, Yale, '28, Hartford.
Culotta, C. S., B.S., Yale, '28, Yale, '28, New Haven.
Cunningham, J. M., B.S., Univ. Texas, '23, Univ. Texas, '26, Hartford.
Curley, W. H., Cornell, '08, Bridgeport.
Curran, E. R., Jefferson, '24, Union City.
Curran, H. J., Tufts, '24, Thomaston.
Curran, P. J., P. & S., N. Y., '01, Bridgeport.
Curtiss, M. E., Wom. Med., Pa., '21, Bristol.
Cushing, H., B.A., Yale, '91, Harvard, '95, New Haven.
Cushman, L. A., B.S., Wash. & Lee, '20, Harvard, '24, West Hartford.
Dallas, M., Boston U., '22, New Haven.
Daly, C. W., P. & S., Balt., '10, Hartford.
Daly, W. P., B.S., Georgetown, '15, Georgetown, '17, Hartford.
D'Amico, M., B.S., Yale, '28, Yale, '31, New Haven.
Danaher, T. J., B.S., Yale, '25, Yale, '28, Torrington.
D'Andrea, F. H., B.S., Yale, '26, Yale, '29, Stamford.
Darrow, D. C., B.S., Cornell, '16, Johns Hopkins, '20, New Haven.
Darrow, J. E., Tufts, '28, New Britain.
Dart, F. H., P. & S., N. Y., '84, Niantic.
Davenport, A. K. P., Med. Coll., S. C., '03; Syracuse U., '17, Hartford.
Davis, C. C., Yale, '07, Essex.
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Oelschlegel, H. C., Jefferson, '11, Torrington.
Oesau, H. T., Jefferson, '26, Stratford.
O'Flaherty, E. P., Cornell, '01, Hartford.
Ogden, A. W., Hahn., Chicago, '13, Norwich.
Ogden, R. T., B.A., Bowdoin, '21, Harvard, '24, Hartford.
O'Hara, W. J. A., P. & S., Balt., '93, Bridgeport.
Olmsted, J. G. M., C.M., McGill, McGill, '25, Hartford.
O'Loughlin, T. F., U. City N. Y., '96, Rockville.
Onderdonk, H. J., N. Y. U., '97, East Hartford.
O'Neil, W. H., Balt. Med., '11, Ansonia.
O'Neil, M. L., B.S., Conn. State, '25, Yale, '29, Jewett City.
Osborn, S. H., C.P.H., Harvard, '15, Tufts, '14, Hartford.
Osborne, O. T., M.A., Yale, '99, Yale, '84, New Haven.
Osgood, C., P. & S., N. Y., '03, Norwich.
O'Shaughnessy, E. J., Univ. & Bellevue, '99, New Canaan.
Osmond, R. H., Ph.B., Yale, '17, Yale, '23, Hartford.
Otis, F. N., Tufts, '18, Meriden.
Otis, I. S., Geo. Wash., '17, Meriden.
Ottenheimer, E. J., B.S., Univ. Va., '20, Univ. Va., '22, Willimantic.
Oughterson, A. W., M.S., Yale, '24, Harvard, '29, New Haven.

Outerson, R. A., Jefferson, '02, Hartford.
Paine, R. C., Dartmouth, '00, Thompson.
Paladino, J. S., B.A., Colgate, '22, Boston U., '26, Hartford.
Palmieri, M. W., Royal Univ. Naples, '33, New Haven.
Papa, J. S., Tufts, '28, Bristol.
Park, P. A., Univ. Ia. (Homeo.), '10, Bristol.
Parker, J. W., Yale, '06, Hartford.
Parlato, M. A., Yale, '08, Derby.
Parmelee, B. M., Univ. Vt., '19, Bridgeport.
Parmelee, E. K., L. I. Coll. Hosp., '89, Ansonia.
Parshley, P. F., Univ. Pa., '27, West Hartford.
Partridge, W. P., B.A., Harvard, '16, Harvard, '20, Hartford.
Pasuth, B. C., Univ. Md., '16, Bridgeport.
Patterson, D. C., P. & S., Balt., '06, Bridgeport.
Patterson, F. A., B.A., New Brunswick, Harvard, '27, Norwalk.
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Paul, J. R., B.A., Princeton, '15, Johns Hopkins, '19, New Haven.
Paul, V. A., Hahn., Chicago, '13, Stamford.
Peck, R. E., Ph.B., Yale, '90, Yale, '93, New Haven.
Pendleton, C. E., Yale, '03, Colchester.
Pendleton, E. R., P. & S., Boston, '04, Granby.
Pennington, H. F., B.S., Rutgers, '23, Harvard, '27, Meriden.
Pepe, C. T., B.A., Yale, '19, Hahn, Chicago, '22, Derby.
Perkins, C. W., Hahn., Phila., '01, Norwalk.
Perreault, J. N., Tufts, '07, Danielson.
Perrins, H. B., B.A., Yale, '16, Yale, '18, New Haven.
Perry, M. J., Wom. Med. Homeo., N. Y., '03, Norwalk.
Peters, H. LeB., B.A., Univ. N. B., McGill, '07, Bridgeport.
Peters, J. P., B.A., Yale, '08, P. & S., N. Y., '13, New Haven.
Peterson, C. K., Tufts, '05, Lakeville.
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Phelps, M. O., B.S., McGill, '25, McGill, '29, Hartford.
Phelps, W. M., B.S., Princeton, '16, Johns Hopkins, '20, Baltimore, Md. (New Haven Co.).
Philipson, S., N. Y. Homeo., '18, New Haven.
Phillips, A. N., P. & S., N. Y., '83, Glenbrook.
Phillips, F. L., Ph.B., Yale, '02, Yale, '06, New Haven.
Phillips, H. S., Toronto U., '22, Westport.
Phillips, K. T., Tufts, '19, Putnam.
Piasta, P. F., Boston, U., '24, Middletown.
Piazza, G. J., B.S., Fordham, '28, Boston U., '32, New Haven.
Pierson, L. A., Tufts, '27, Meriden.
Pierson, E. M., B.A., Vassar, '07; M.A., Columbia, '08, Yale, '24, Cromwell.
Pierson, S., P. & S., N. Y., '81, Stamford.
Pike, E. R., Univ. Mich., '98, East Woodstock.
Pike, M. M., B.A., Brown, '21, Harvard, '25, Hartford.
Pileggi, P., Univ. Md., '28, Bridgeport.
Pine, C. S., B.A., Univ. Mich., '33, Univ. Mich., '31, Naugatuck.
Pinn, A. S., Laval, '29, New Haven.
Pinney, A. W., Hahn., Phila., '00, Norfolk.
Pinney, R. W., P. & S., N. Y., '88, Derby.
Pitock, M. P., B.A., '25; M.A., '26, Franklin & Marshall, Tufts, '30, Fairfield.
Platt, I. S., Univ. S. Calif., '12, Waterbury.
Platt, W. L., P. & S., N. Y., '81, Norwich (Litchfield Co.).
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Pomeroy, N. A., P. & S., N. Y., '96, Waterbury.
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Poole, L. E., D.P.H., Yale, '25, Tufts, '07, Fairfield.
Porter, D. W., B.A., Yale, '08, Harvard, '12, New Haven.
Potter, F. E., B.A., Williams, '85, P. & S., N. Y., '89, Middletown.
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Pratt, A. P., B.A., Clark, '13; C.P.H., Mass. Inst. Tech., '16, Harvard, 22, Windsor.
Pratt, E., P. & S., N. Y., '87, Torrington.
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Pratt, N. T., B.A., Trinity, '94; M.A., Trinity, '97, Yale, '04, Saybrook, (Fairfield Co.).
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Prout, C. T., B.A., Cornell, '21; M.S., Univ. Minn., '29, Cornell, '24, Hartford.
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Radom, M. M., Jefferson, '25, Hartford.
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Rasmussen, H. N., Tufts, '25, Uncasville.
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Reidy, M. J., P. & S., N. Y., '10, Winsted.
Reilly, F. H., Yale, '97, New Haven.
Reilly, W. A., Bellevue, '98, Naugatuck.
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Richardson, R. A., Univ. Vt., '14, Bristol.
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Ricksher, C., B.S., Parsons, '01, Johns Hopkins, '05, Norwich.
Riendean, P. L., Univ. Paris, '27, Norwich.
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Riordan, M. D., Univ. Vt., '12, Willimantic.
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Roberts, E. R., Med. Sch. Me., '13, Bridgeport.
Roberts, F. W., Johns Hopkins, '24, New Haven.
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Rockwell, A. E., Johns Hopkins, '21, Bridgeport.
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Rogers, P. H., Yale, '12, West Haven.
Rogers, R. P., B.A., Harvard, '21, Harvard, '25, Greenwich.
Rogol, O., Ph.B., Brown, '20, Dalhousie, '32, Seymour.
Rogowski, B. A., Ph.B., Yale, '20, New Haven.
Rollins, H. B., B.S., Dartmouth, '20, Yale, '22, Hartford.
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Rooney, J. F., Balt. Med., '03, Hartford.
Root, E. K., U. City N. Y., '79, Hartford.
Root, J. H., Ph.B., Harvard, '18, Waterbury.
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Root, S. Q., Wom. Med. Homeo., N. Y., '96, Stamford.
Root, S. T. A., B.A., Barnard, '14; M.A., Columbia, '15, Cornell, '19, West Hartford.

Rose, S. A., N. Y. U. & Bell., '23, Stamford.
Rosenbaum, G. J., B.S., Trinity, '30, Tufts, '34, Hartford.
Roth, F. E., Univ. & Bellevue, '25, Hartford.
Rothschild, M. L., Ph.B., Yale, '19, Paris U., '26, New Haven.
Rowe, M. J., P. & S., Balt., '96, Bridgeport.
Rowley, A. M., Univ. Vt., '97, Hartford.
Rowley, J. C., B.A., Harvard, '02, Harvard, '06, Hartford.
Rowley, R. L., Yale, '03, Hartford.
Roy, J. L., B.A., Clark, '30, Tufts, '34, No. Grosvenordale.
Ruby, M. H., Ph.B., Yale, '18, P. & S., N. Y., '21, Waterbury.
Ruickoldt, C. A., Yale, '07, New Haven.
Russell, E. F., B.A., Yale, '16, Cornell, '20, Santa Barbara, Cal. (New Haven Co.).
Russell, G. G., B.A., Harvard, Harvard, '19, Hartford.
Russell, J. J., N. Y. Homeo, '87, Putnam.
Russell, T. H., Ph.B., Yale, '06, Yale, '10, New Haven.
Russell, W. I., Yale, '09, New Haven.
Russman, C., Tufts, '23, Middletown.
Russo, J. D., Ph.B., Yale, '12, Yale, '16, New Haven.
Ryan, F. J., B.S., Trinity, '30, Tufts, '35, Hartford.
Ryan, T. M., B.A., Loyola Coll., Balt. Med., '02, Torrington.
Ryder, R. H., P. & S., Balt., '13, Waterbury.
Ryder, W. H., Jefferson, '20, New Haven.
Rynard, W. M. W., Toronto U., '24, Stamford.
Sagarino, J. F., Ph.B., Yale, '09, P. & S., N. Y., '13, Hartford.
Salinger, R., Johns Hopkins, '25, New Haven.
Salmond, P. H., Univ. Manitoba, '20 Stamford, (Tolland Co.).
Salvin, B. L., Geo. Wash., '21. Hartford.
Samponaro, N., B.S., Trinity, '25, Johns Hopkins, '29, Hartford.
Sanderson, R. V., Univ. Vt., '20, Winsted.
Sandulli, G. R., B.A., Harvard, '25, Tufts, '29, Waterbury.
Sanford, C. E., Yale, '06, New Haven.
Sansone, N. M., Gross Med., '02, Bridgeport.
Santoro, G. M., B.A., Cornell, '24, Waterbury.
Satti, C. J., Yale, '23, New London.
Savard, A. J., Tufts, '19, New Britain.
Scafarello, P. J., Tufts, '26, Hartford.
Scanlon, T. F., Yale, '07, Norwalk.
Scarbrough, M. McR., B.A., Univ. Oregon, '02; M.A., Yale, '05, Yale, '07, New Haven.
Schaefer, A. M., Ph.B., Yale, '21, Yale, '25, Hartford.
Schaefer, J., Tufts, '17, Hartford.
Schechtman, C. T., Univ. Vt., '26, New Britain.
Schiavetti, A., B.A., Columbia, '26, Tufts, '30, Stafford Springs.
Schmidt, N. L., B.S., Yale, Vanderbilt, '27, Stamford.
Schneider, W., B.S., N. Y. U., '27; B.S. (Med.), Univ. Kan., '28, Geo. Wash., '30, Rockville.
Scholl, R. F., Yale, '12, New Haven.
Schuman, D. H., B.S., Columbia, '20, P. & S., N. Y., '22, Hartford.
Schupack, S. D., Tufts, '24, New Britain.
Schwartz, P. E., Tufts, '31, Portland.
Scott, C. R., B.S., Westminster, '15, Yale, '19, New Haven.
Scott, K. S., B.S., Haverford, '23, Univ. Pa., '33, Essex.
Scott, W. J., Fordham, '16, Derby.
Scoville, D. H., Cinn. U., '30, New London.
Scudder, W. D., Harvard, '20, Hartford.
Seabury, R. B., Harvard, '18, New Haven.
Sears, L., Harvard, '29, Norwich.
Segnalla, E., Yale, '12, New Haven.
Segur, G. C., P. & S., N. Y., '82, Hartford.
Seibert, A. F., Yale, '27, Hartford.
Seigall, H. A., Univ. Vt., '14, Hartford.
Sekerak, A. J., Univ. Md., '22, Bridgeport.
Selleck, N., U. City N. Y., '91, Danbury.
Selleck, N. B., L. I. Coll. Hosp., '24, Danbury.
Sellew, R. C., Yale, '98, Canaan.
Senfield, M., Univ. Vienna, '20, Ansonia.
Serafin, P. J., B.S., Dartmouth, '18, N. Y. U., '21, New Haven.
Sette, A. J., Geo. Wash., '27, Stamford.
Shafer, A., Univ. Pa., '18, Hartford.
Shannon, T. I., Balt. Med., '99, Norwich, (Litchfield Co.).
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Shay, F. L., Ph.B., Yale, '21, Tufts, '25, New Haven.
Shea, D. E., Loyola, '17, Hartford.
Shea, J. F., P. & S., Balt., '11, Bridgeport.
Shea, M. S., Univ. Vt., '21, New Haven.
Shea, V. T., Tufts, '31, Waterbury.
Sheahan, W. L., P. & S., Balt., '12, New Haven.
Sheehan, M. T., Yale, '10, Wallingford.
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Shermak, J. V., Univ. Vienna, '19, Stamford.
Shirk, S. M., Hahn., Phila., '97, Stamford.
Shockley, F. M., Univ. Med. Coll., Kansas C., '13, Stamford.
Shulman, D. N., B.A., Johns Hopkins, '13, Johns Hopkins, '17, Hartford
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Siliciano, R. A. V., Hahn., Chicago, '24, Bristol.
Sills, T. H., B.S., Yale, '24, Yale, '27, Newington.
Silverberg, S. J., P. & S., N. Y., '21, New Haven.
Simmons, E. M., B.A., Bowdoin, '19, Yale, '23, Southington.
Simon, L. G., B.S., N. Y. U., '24, N. Y. U., '27, South Norwalk.
Simonton, F. F., Med. Sch. Me., '03, Thompsonville.
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Slysz, L. B., Boston U., '27, New Britain.
Smail, M. L., Univ. Vt., '93, New London.
Smith, A. C., P. & S., Balt., '10, Danbury.
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Smith, D., B.A., Yale, '96, Yale, '99, Bridgeport.
Smith, D. P., B.A., Yale, '10, Yale, '12, Meriden.
Smith, E. H., B.A., Amherst, '85, P. & S., N. Y., '89, Redding.
Smith, E. L., Yale, '96, Waterbury.
Smith, E. T., M.A., Trinity, '03, Hon., Yale, '97, Hartford.
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Smith, F. M., Univ. Vt., '11, Willimantic.
Smith, G. A., B.A., Yale, '03, Johns Hopkins, '07, Long Hill.
Smith, G. M., B.A., Yale, '01, P. & S., N. Y., '05, Pine Orchard, Branford.
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Smith, G. T., Yale, '08, Waterbury.
Smith, H. B., M.P.H., Harvard, '31, Univ. Pa., '26, West Hartford.
Smith, J. J., B.A., Columbia, '26, Univ. Md., '30, Bridgeport.
Smith, M., U. City N. Y., '83, New Haven.
Smith, N. N., Ph.B., Yale, '21, Yale, '24, New Haven.
Smith, S. M., Tufts, '20, Green's Farms.
Smith, S. R., B.A., Bucknell, '09, Med. Chi., Phila., '16, Bridgeport.
Smith, V. J., Univ. Pa., '20, New Britain.
Smith, W. B., Univ. Pa., '22, Wethersfield.
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Solomon, C. I., B.S., C. City N. Y., '21, Yale, '25, Meriden.
Soltz, T., Jefferson, '11, New London.
Soper, W. B., B.A., Yale, P. & S., N. Y., '08, New Haven.
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Standish, F. B., Yale, '03, New Haven.
Standish, H. C., Cornell, '28, Hartford.

Standish, J. H., U. City N. Y., '95, Hartford.
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Stephenson, C. W., Harvard, '22, Hartford.
Stetson, H. W., Univ. Vt., '06, Milford.
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Stevenson, W. R., Boston U., '31, Bristol.
Stewart, H. E., Yale, '10, New Haven.
Stewart, L. Q., B.S., Middlebury, '26, Yale, '33, West Hartford.
Stillman, C. K., P. & S., N. Y., '04, Mystic.
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Stockwell, W. M., Univ. Pa., '04, Hartford.
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Stone, H. R., Wesleyan, '99, Johns Hopkins, '04, Clinton.
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Stone, W. S., P. & S., N. Y., '91, Norwalk.
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Storrs, R. W., B.S., Trinity, '17, Harvard, '20, Hartford.
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Stratton, E. A., U. City N. Y., '83, Danbury.
Strauss, M. J., B.A., Yale, '14, P. & S., N. Y., '17, New Haven.
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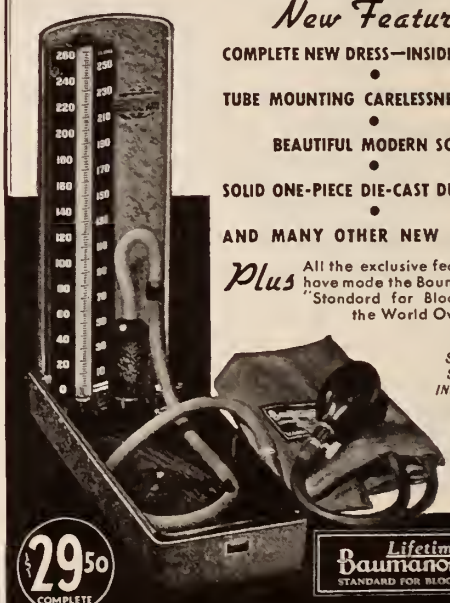
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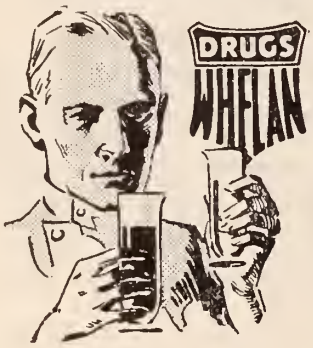
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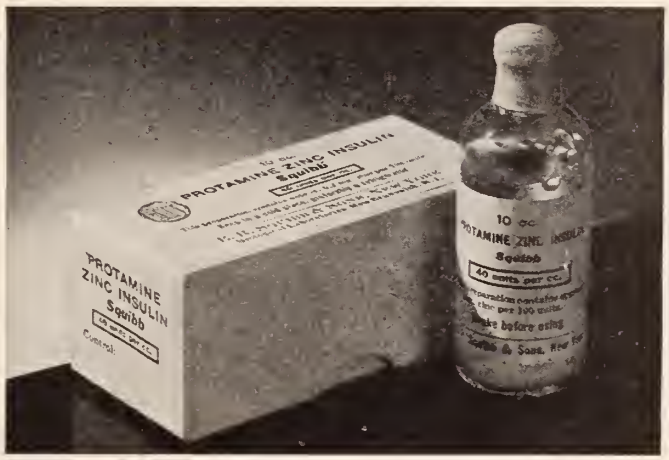
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Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154
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Arch. Otolaryngology, Mar. 1936, Vol. 23, No. 3
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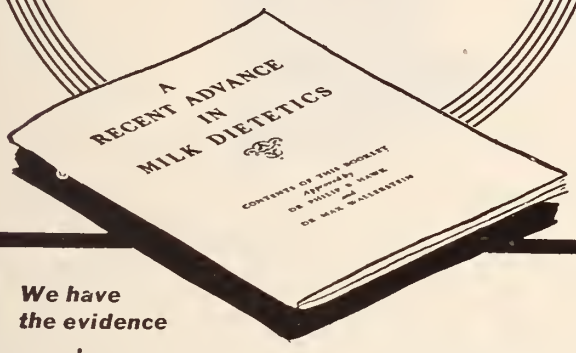
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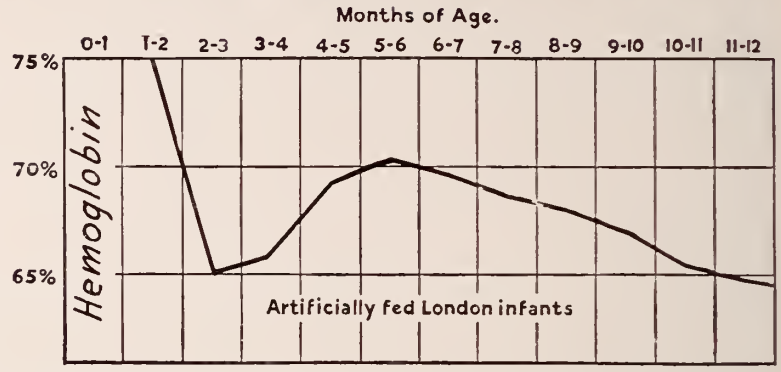
Journal of The Connecticut State Medical Society

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Nutritional Anemia in Infants

The accompanying chart of the hemoglobin level in the blood of infants is based on more than 1,000 clinical cases studied by Mackay. The sharp drop in hemoglobin during the early months of life has also been reported by a number of other authorities. It is noteworthy that this fall in hemoglobin has been found to parallel closely that of diminishing iron reserve in the infant's liver. The usual milk formula of infants in early life further contributes to this anemia because milk is notably low in iron. It is now possible, however, to increase significantly the iron intake of bottle-fed infants from birth by feeding Dextri-Maltose With Vitamin B in the milk formula. After the third month Pablum as the first solid food offers substantial amounts of iron for both breast- and bottle-fed babies.



Reasons for Early Pablum Feedings

1. The iron stored in the infant's liver at birth is rapidly depleted during the first months of life. (Mackay,[1] Elvehjem.[2])

2. During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt.[3])

For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,[4] Galloway[5]), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,[6] Glazier,[7] Lynch[8].)

The Choice of the Iron-Containing Food

1. Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the iron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.[9])

2. To be effective, food iron should be in soluble form. Some foods fairly high in total iron are low in soluble iron. (Summerfeldt.[10])

3. **Pablum is high both in total iron (30 mg. per 100 gm.) and soluble iron (7.8 mg. per 100 gm.) and can be fed in significant amounts without digestive upsets as early as the third month, before the initial store of iron in the liver is depleted. Pablum also forms an iron-valuable addition to the diet of pregnant and nursing mothers.**

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The Diagnosis and Treatment of Primary Malignant Disease of the Tracheo-Bronchial Tree*

PORTER P. VINSON, M.D.

Richmond, Va.

Although malignant tumors arising from any portion of the body may spread to the lungs and produce single or multiple metastatic nodules, such metastasis is encountered most frequently when the primary growth has originated in the breast, thyroid gland or kidney. These secondary growths rarely produce pulmonary symptoms and are not detectable by physical examination unless they involve the pleura and are associated with effusion. Although local tumors need not be extensive in order to give rise to widespread metastatic implants, yet the longer the duration of the local lesion the greater the likelihood of metastasis to the lungs. When pulmonary metastasis is present there is little uncertainty as to the presence of a primary malignant lesion in another part of the body.

The earlier recognition and more prompt removal of malignant tumors from various organs has reduced the number of metastatic lesions appearing in the lungs, but the number of malignant tumors arising primarily in the bronchi has increased. Prior to 1925 primary carcinoma of the tracheo-bronchial tree was considered a rare disease but since that time many cases have been recognized. The more general employment of the bronchoscope in the diagnosis of pulmonary lesions has permitted recognition of the disease during life in many instances and an increase in the number of these cases observed at postmortem has also been noted. It would appear that the number of cases of primary carcinoma of the tracheo-bronchial tree has definitely increased rather than that lesions which previousy were diagnosed as inflammatory are now recognized as malignant.

There usually is little doubt as to whether a malignant lesion in the lung is primary or

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metastatic. Metastatic lesions rarely ulcerate through the wall of a bronchus and, unless a bronchus or the pleura is invaded by a malignant lesion, symptoms and signs are seldom present. The absence of a primary lesion in another portion of the body is further evidence that the pulmonary lesion has originated in the tracheobronchial tree. A few cases of involvement of the bronchus from ulceration of a metastatic lesion from hypernephroma have been observed. In these cases the renal tumor was recognized and the tissue which was removed from the lumen of the invaded bronchus was easily identified as having originated from hypernephroma. Primary malignant disease in a lung is usually represented by a single localized area of infiltration whereas in secondary malignant disease multiple nodules frequently are scattered throughout both lungs.

The chief difficulty in the diagnosis of primary carcinoma of the tracheo-bronchial tree is not in the differentiation of a primary from a secondary malignant lesion in the lung, but in ascertaining whether a pulmonary lesion is malignant or inflammatory in character. All chronic pulmonary lesions may be associated with similar symptoms and the identification of carcinoma arising in the air passages is impossible by history alone. A few primary malignant lesions arising in a lung may not be associated with pulmonary symptoms, especially when the lesion occurs in one of the smaller bronchi. Symptoms from a metastatic lesion in the brain or bones may be the first indication of primary bronchial neoplasm. Fever, cough, and expectoration of mucus, pus or blood frequently are present. Dyspnea usually is more pronounced than with inflammatory pulmonary lesions. Pain may be a prominent feature and is described as a constant ache. Acute pain is rarely present without involvement of the pleura. Stridor frequently is observed early in the disease even when the lesion is located in one of the smaller bronchial tubes and as the lumen of the bronchus becomes occluded it may disappear. When the lesion is in the trachea, stridor is an outstanding symptom.

At the onset of the disease cough may be unusually persistent, of an irritating type, and it may or may not be associated with sputum. Streaks of blood may be expectorated without other secretion and profuse hemorrhage is noted occasionally. The daily expectoration of small amounts of blood should arouse the suspicion of the presence of bronchogenic carcinoma.

Partial occlusion of a bronchus usually is followed by infection in the lung distal to the lesion and suppurative phenomena may be so pronounced that the presence of a pulmonary abscess may be considered. As the lesion progresses it may extend to the pleura with the development of effusion which may be serous, bloody or purulent. The presence of blood in pleural effusion suggests that the underlying lesion is malignant, although sanguineous fluid ma occur in tuberculous pleurisy. Serous effusion from carcinoma may disappear and not recur after aspiration. Infection of the pleura from suppurative disease in the lung beyond the carcinomatous bronchial stricture may lead to the diagnosis of empyema secondary to a lesion which is not malignant. Occasionally a diagnosis of carcinoma can be made from the microscopic examination of cells obtained from fluid aspirated from the thorax. One must emphasize, however, that a diagnosis as to the presence or absence of a malignant lesion cannot be made with accuracy from the gross appearance of fluid which has been aspirated from the pleural space.

When the pleura is involved by malignant disease with secondary thickening and associated effusion, physical examination of the thorax reveals nothing of differential diagnostic value. General physical examination may indicate the presence of malignant disease and superficial metastatic lymph nodes may be identified in the cervical or axillary regions or they may be found in the thoracic wall. Physical examination of the lungs is of great value in differentiating malignant lesions from those of inflammatory origin except when there is invasion of the pleura. The significant signs in malignant disease are localied distant or absent breath sounds over the area corresponding to the distribution of the bronchus which is involved by the neoplasm, with less evidence of impairment of the percussion note than if the suppression of breath sounds were due to thickening of the pleura.

Secondary anemia which is noted in many patients suffering from primary bronchial carcinoma may be the result of bleeding from the growth or from toxemia. Leukocytosis frequently is associated with infection in the lung

secondary to the tumor. Examination of the sputum may reveal the presence of malignant cells, or a definite diagnosis of the disease may be obtained by the examination of tissue which may break off from the lesion and be expelled from the tracheo-bronchial tree.

Roentgenoscopic examination of the thorax is of much value in the detection of lesions in the lungs, although rarely is it possible to make a definite diagnosis of malignant disease by this study alone. When carcinoma is limited to the trachea, roentgenoscopy will not reveal anything abnormal. When a small growth involves the bronchus behind the heart, the lesion may not be detectable by roentgenoscopic examination. In those lesions presenting gross evidence of infiltration it usually is impossible to determine by roentgenoscopic study whether the shadow is the result of inflammatory disease or malignant infiltration associated with infection.

When a superficial cervical lymph node reveals microscopic evidence of malignant infiltration and is associated with a pulmonary lesion which appears malignant, the presence of primary bronchial carcinoma may be assumed. A more satisfactory method of determining the character of a pulmonary lesion, however, is by the microscopic examination of tissue which has been removed from the lumen of a bronchus at bronchoscopic examination. By this method an exact diagnosis can be made in a majority of cases and malignant lesions can be differentiated from those of tuberculous or of nontuberculous inflammatory origin. When a pulmonary lesion is associated with marked reduction in breath sounds, tissue should be removed from the wall of a bronchus for microscopic study even though the bronchus may appear to be fairly normal. Such a procedure may disclose many cases of bronchial carcinoma at a much earlier date than if one waited until gross evidence of bronchial disease was present before removing tissue for microscopic study. If tissue which has been removed from an ulcerating lesion in a bronchus is inflammatory in character and a second or third specimen fails to reveal the presence of carcinoma, the disease probably is not malignant, in which case pulmonary calculus or a tuberculous hilar lymph node ulcerating through a bronchial wall should be suspected as the cause of the lesion.

The treatment of malignant disease arising in the tracheo-bronchial tree depends on the character and location of the lesion and the general condition of the patient. If the lesion is located in the trachea or involves a main bronchus near the bifurcation of the trachea, operative removal of the growth should not be attempted. In such cases the employment of deep roentgen ray therapy, surgical diathermy or implantation of radium may prove beneficial especially if the tumor is adenocarcinoma. Tumors of the squamous cell type do not respond favorably to electrocoagulation, roentgen ray therapy or treatment with radium. When the tumor is located well beyond the bifurcation of the trachea, surgical removal should be advised if the general condition of the patient is satisfactory and metastasis is not demonstrable. Adenocarcinomata respond more favorably to conservative treatment and one should hesitate to advise operation for patients having lesions of this character. Many observers have reported cases of tumors of the bronchus pathologically indistinguishable from adenocarcinoma but differing from true carcinomata in that they do not produce metastasis. These tumors cause symptoms from obstruction to a bronchus with secondary pulmonary infection. They can be removed by coagulation and roentgen ray therapy and rarely require surgical excision. In advanced carcinoma of the tracheo-bronchial tree with metastasis and cachexia general supportive measures should be employed. It is unwise to attempt to control the growth by radiation or surgery as such treatment adds to the discomfort of the patient without producing beneficial results.

Conclusions

Primary carcinoma of the tracheo-bronchial tree is increasing in frequency. The disease is not associated with characteristic pulmonary symptoms although thoracic pain, dyspnea and irritating cough should suggest the presence of neoplasm. The most distinctive physical sign is distant or absent breath sounds over that portion of the lung representing the distribution of the bronchus involved by the growth. Roentgenoscopic study may not reveal the presence of a lesion, or shadows produced by the tumor may be indistinguishable from inflammatory lesions. Bronchoscopic examination with removal of tissue from the growth is the most satisfactory

method of diagnosing the disease. In patients who are in satisfactory physical condition the surgical removal of squamous cell tumors is indicated if the growth is limited to the lung and is located a sufficient distance beyond the bifurcation of the trachea to permit successful closure of the bronchial opening after the growth has been excised. Adenocarcinoma should be treated by surgical diathermy, radium or roentgen rays. Patients in poor physical condition should receive symptomatic treatment only.

DISCUSSION

DR. WILLIAM F. VERDI (New Haven): Mr. President, we certainly are indebted to Dr. Vinson for making us a little more cancer-of-the-lung-minded than we are at the present time.

It is true, and I agree with Dr. Vinson, that the difficulty of diagnosis in this subject is a little greater than he has made it appear. Of course, when one has the experience and is facile in the use of the bronchoscope, as he must be, I feel that x-ray and bronchoscopy and the removal of tissue for microscopic examination is the only positive way of making a diagnosis.

I want to say that surgery of the chest is more or less due, and was initiated during the War. I had the good fortune to be associated with a chest unit, and was able to see for myself that operations upon the lung were not as dangerous as we thought they might be. We were able to expose lungs, gunshot wounds of the lungs, see the fragments in the lungs, remove them, and have our patients get well.

It was soon after the War, I think, that a branch of thoracic surgery was started in this country, and there exists now an Association of Thoracic Surgeons.

The diagnosis, of course, is the all-important thing in cancer of the lung, and the diagnosis for surgical attack must be early in order to accomplish it. Dr. Graham of St. Louis, I think, has a record of having done six total pneumonectomies on patients who are living two or three years after the operation. In order to do a total pneumonectomy it is important that the diagnosis be early before there is an invasion of mediastinal glands, before the invasion is so extensive that a really complete removal is impossible. As far as the operation itself is concerned — that is, the removal of the entire lung — in itself that does not offer any very great technical difficulty. The main thing, of course, is to get it early enough so that you can encircle the cancer and remove it completely.

Cancer of the bronchial tree, of the upper or lower bronchus or at the bifurcation of the trachea, can be readily seen with the bronchoscope — can be seen in the large bronchus going down to the lower parts of the lung. But it is very difficult to see a cancer in the upper bronchus, the main bronchus going to the apex.

Dr. Vinson didn't speak about the cancer of this particular bronchus. It is entirely different from cancer of the lower bronchus. It has a lot more symptoms. Cancer of the upper bronchus involving the apex of the lung gives a great deal of pain in the neck. It invades the great vessels. It sometimes destroys the upper first and second rubs and becomes attached, so that an operation for its removal, even if a total pneumonectomy is performed, is more or less impossible.

As you all know, I have always hesitated about the use of x-ray. I think most men will agree with me at least when I say that there are very few cases that one can positively say x-ray has cured. There are a number of authors, a number of investigators, who don't seem to think that the results are as good as are sometimes reported. The only thing that they report is amelioration of symptoms. Well, who can say how much the x-ray ameliorates? In cancer of the lung you find that there is always infection. X-ray will improve, diminish and resolve an infection, and in that way make it appear that the carcinoma has been benefited by the x-ray. Of course, it is very difficult to say how many cases, if any, are cured; a number of years must pass before you can definitely say that an actual bona fide cancer of a bronchus has been cured completely by x-ray. But, taken early enough, surgery and then x-ray, I think, is the best method of treatment.

We had one case in our hospital of a man with a carcinoma of the main bronchus. We accomplished a pneumonectomy without very much difficulty, but at the operation we found that the whole mediastinal mass of glands was involved, and naturally, while he survived the operation for two or three days, at the postmortem it was found to be an entirely hopeless situation.

So that, even if we are fortunate enough to be able to have a bronchoscopist who is expert, it is not a simple matter, and he must know what he sees; he must be certain of what he sees. He must be able to remove a piece of tissue, which was done in the case we operated upon, and confirm it by microscopic examination. But an inexpert person looking through a bronchoscope does nothing more than befog the situation.

Dr. Vinson said nothing about the use of lipiodol. I wonder whether he has given it up, whether he doesn't use it, or whether he thinks it is a frill. We have used lipiodol injections through the bronchoscope many times, and, while we feel that it doesn't help a great deal, we feel it is an adjunct to x-ray and bronchoscopy. We think that fluoroscopy is even better than x-ray, stereoscopic x-rays, because with fluoroscopy you can move your patient around everywhere you want, and get every different angle, and visualize the condition. We believe in fluoroscopy a good deal.

As Dr. Vinson says, seven per cent of all the cancers of the body are in the lung. Whether it has been due to improved technique in diagnosis, or more alertness to the situation in postmortem findings, we are becoming cancer-of-the-bronchial-tree-minded.

I want to ask Dr. Vinson one question: I want to ask him what he means by coagulation necrosis. Do you apply that through the bronchoscope?

You see, it requires a person of wonderful skill and technique to do things of that sort.

DR. JAMES J. HENNESSY (Hartford): Mr. President, I think Dr. Vinson's paper is very timely. Carcinoma of the lung, it seems to me, may be increasing more apparently than really. I thought, coming from Connecticut, some of you gentlemen would be interested to know

about cancer of the lung — that is, of course, primary cancer — in a general hospital.

In the last three years at St. Mary's Hospital we have diagnosed cancer of the lung in some ten cases — primary. I am glad to say that most of those diagnoses were made by bronchoscopy rather than by autopsy, although several of them were confirmed. We got tissue from the bronchus that proved the diagnosis. I am sorry to say that none of those patients are alive. None of them came to surgery, although two or three went to the Lahey Clinic in Boston, and at least one went to the Jackson Clinic in Philadelphia.

In connection with the age that Dr. Vinson mentioned — people of 40 and over — I would like to stress the fact that, as Dr. Vinson will probably bear me out, it can occur in people in their twenty's. I am thinking particularly of one girl who was 28 years of age, whom we bronchoscoped and made a diagnosis of squamous cell cancer of the lung. We sent her to Overholt in Boston. He found metastases, which we did not, and considered her an inoperable case. She died in a few months.

The age group, I think, can be well emphasized and brought down lower. At the Waterbury Hospital there are seven cases of primary carcinoma of the lung. In several of those cases the diagnoses were made before the patients died. In none of these cases, however, as I said, was there any surgical attempt to remove the carcinoma or the lung; but in several of them deep x-ray therapy was done, with practically no relief, or results, at least.

In speaking of the symptoms of carcinoma of the lung, I think it is well for the general man to consider every chronic pulmonary case as a possible carcinoma of the lung, regardless of the age; that is, as long as the patient is an adult.

In every diagnosis of the lung that is made, such as abscess or bronchiectasis — excluding tuberculosis — it is well to keep in mind that even with that diagnosis you may still have a diagnosis of carcinoma of the lung to contend with. Abscess of the lung is not rare following a constricting carcinoma of a bronchus. The tissue fluids behind that obstruction often develop into a real abscess which brings the patient to the doctor, and it is not always possible to make a diagnosis of cancer before death, but on autopsy some of these cases will show you a definite carcinoma of the bronchus.

I was glad to hear Dr. Vinson mention the adenocarcinoma, sometimes called the carcinoid type of carcinomas, in connection with some of these patients, who, when the tissue is removed and given a diagnosis of definite carcinoma of the lung, afterwards, instead of running entirely downhill, even become somewhat better and improve, gain weight and so forth, and live a number of years. The explanation of that by some people is that it is a very slow-growing carcinoma; and the explanation by others is that is a histological carcinoma, but clinically a benign tumor. I would like to hear Dr. Vinson mention more about that.

Of course, when I say "chronic diseases of the lung," I suggest investigating these cases further to find, if possible, some explanation for the pathology that is evident, that usually means after the tuberculosis is excluded. There are some cases of carcinoma of the lung with associated tuberculosis. It might interest you to know that at the State Sanatorium at Hartford in the last three years we have admitted more than 750 cases of lung conditions — of course, mostly pulmonary tuberculosis.

Of those 750 plus, we have found but two definite carcinomas of the lung. We have made more diagnoses in the general hospitals than we have in the Sanatorium itself.

DR. H. L. SWAIN (New Haven): You can, with no other means than your head mirror and your laryngoscope, look down into the lung, as you all know, and if you see blood coming up from the right bronchus and not the left, you have reason to believe the lesion is in the right bronchus. This is extremely interesting to me, this afternoon, to hear Dr. Vinson speak so definitely as he does, about this one point of being able to diagnose the lack of clarity in the bronchial sounds which is not due to ordinary causes — stoppage of the tube, or from a foreign body, or any of the other outside lesions or abscesses.

DR. W. TILESTON (New Haven): I should like to call your attention to a rather commonplace late diagnostic sign of cancer of the lung, which, however, has proved very helpful, and that is metastatic lymph nodes in the neck. I would hesitate to mention such a common thing as that, except for the fact that these nodes are small and deeply placed in a situation where they are almost certain to be overlooked unless you search for them very carefully.

As a matter of fact, in the cases we have had at the hospital, four out of the last five or six cancers of the lung have shown these metastatic nodes. Of course it is very important to detect them, because if they are present there is no use in operating. Furthermore, you can perform a biopsy, which was done in all of these cases, and make an exact diagnosis. These nodes are on the same side as the cancer. They are at the base of the neck, usually in between the two heads of the sternomastoid muscle, and quite deeply placed, so that you have to palpate very carefully to feel them at all. They are usually in relation to the great vessels in the neck.

DR. J. S. DYE (Waterbury): I, like everyone else here, I am sure, have enjoyed this paper immensely. It brings up a question that we are confronted with in cancer all over the body. That is, whether it is on the increase or not. I would like Dr. Vinson to tell us whether this is more evident to us now, due to diagnosis and postmortems, than it is due to the actual increase.

With reference to operating on these cases, when we have metastases I think the tendency now with the surgeon is: If you can remove the mass, remove it even if you have metastases, because we find so often that these metastases, as we think they are, are inflammatory things, not real metastases, and that frequently these metastases do not grow rapidly.

I have enjoyed the discussion very much. I would like to ask this question before I close: Whether Dr. Vinson has had any complications in doing these biopsies, and in the treatment through the bronchoscope.

DR. VINSON: There are so many questions that have been brought up that I am afraid I would bore you for the rest of the afternoon and into the evening if I attempted to answer all of them. There are a few that I am going to answer, and stress. I am going to begin almost at the last, and discuss the question of the metastatic

nodes that Dr. Tileston referred to, which is an all-important thing.

The first examination of the lung should consist of the palpation of the neck for metastatic cervical nodes, and you will save yourself some awfully embarrassing situations if you will just find one of these nodes in an indeterminate lesion, whether it is in the esophagus or the lung. Both malignant lesions in the esophagus and the lung are apt to metastasize to those nodes, as well as lesions below the diaphragm. Carcinoma of the stomach without evidence of digestive disturbance may metastisize to these nodes.

There is one other point in relation to that node: If you have a definite lesion in the lung, it is sometimes preferable to bronchoscope the patient and remove a piece of tissue from the lesion in the lung, rather than to remove the node. The bronschocopic examination can be done without hospitalization, without any more discomfort than the removal of the node, and then the patient doesn't have to have dressings and stitches removed, and so forth.

The question of the hazard of removing tissue from a bronchial lesion has been brought up. The patient whom I saw, or whom I showed there, who developed the fibrosis, following radiation for the adenomatous type of lesion in the lung, bled very profusely when I was using the electrocoagulation. The instrument that we use is a long electrode which is insulated with bakelite, except for the tip. The tip, the uninsulated portion of this electrode, is thrust into the tumor at various angles, and the tumor is coagulated. Many times, two or three days after the coagulation the patient will cough out a large piece of tumor, and then the rest of it, as in that particular case. That was a tumor that filled the entire lumen of the bronchus, and yet it had shrunk down to something not any larger than — as you saw there — half of a pea.

I have not seen any fatalities following the removal of tissue. I saw one patient who, when the bronchoscope was introduced through the larynx, had a sudden hemorrhage from which he succumbed before any direct trauma had been exerted on the tumor at all.

Another patient — and that brings up the question of obstructive dyspnea — was seen by me in my office at eleven o'clock one morning. She was breathing perfectly comfortably. In the afternoon she came over for bronchoscopic examination for a carcinoma, or suspected carcinoma. When she came into the operating room, she was a little dyspneic, which I attributed to a nervous reaction. I rather hesitated about going on with the bronchoscopy. After anesthetizing the throat she was still more dyspneic. When she got on the table she was increasingly so, and I suggested that we put off the examination. She wanted to go ahead with it. I bronchoscoped her and looked into the right bronchus. I couldn't see any lumen. I took a piece of tissue. I thought, "Well, the lumen of the right bronchus is occluded, but this shouldn't give her this pronounced dyspnea." I looked into the left bronchus, and the left bronchus was occluded. She died from respiratory failure on the table, from bilateral bronchial obstruction, from carcinoma. Just two or three hours before, she had been breathing not perfectly comfortably, but relatively comfortably. That is the only other fatality that I have ever had on the table in dealing with bronchial carcinoma.

There are two or three points about the question of operation. For goodness sake, don't treat patients who have hopeless extensive cancer of the lung with x-ray or with anything else except morphine or some other sedative. Don't subject those patients to the nausea and to the discomfort, and the expense of trying to give them x-ray unless the family and everybody else knows that it is a placebo performance. Don't treat seriously those cases that have extensive metastases, anemia, pleural effusion and so on. Don't operate on patients who have evidence of metastasis, because if we are going to do anything surgically for these people we have to start with a fairly acceptable case. Otherwise you will throw the operation into the wastebasket and all the doctors will way, "Well, there is no use in the world in operating on this case, because all the other cases that I ever saw operated on, died." Don't give it a black eye. Reserve the operation for the squamous cell type of tumor, because the squamous cell type of tumor does not respond to any other type of surgery. The adenoma carcinoma, these relatively benign nonmetastasizing adenomas or carcinomata tumors, can be treated successfully in many instances by conservative means. Don't subject those patients to radical operation.

You say, "How do we know we are going to get a permanent cure?" How do we know any patient operated on for cancer of the lung is going to be perfectly cured? Graham's case has gone now, for about four or five years without recurrence, but one of my patients has gone for nine years, is still living and going strong. So that you can't say what is going to happen.

Deal with the present and relieve these patients as much as possible from their distress, and they do have distress. If you will treat these folks you will get rid of their fever — in many of them with large obstructing tumors you will get rid of the fever and the absorption. You will reduce their cough or completely do away with it.

I have a man whom I have been treating since last November. He came in the other day for another coagulation. He has a wide lumen now. He told me when he came back this time that he had practically no cough. Previously he had codein every night, a lot of it, to permit him to sleep.

The question of the increase in cancer: This increase in cancer of the lung has been an actual increase, because it is hard to conceive of postmortem examinations being more readily obtained on bronchial cancer than on other lesions. The proportion of bronchial cancer seen in general autopsy service has increased at the same rate as the increase in those observed through bronchoscopy. Since about 1920, I have been doing routine bronchoscopic examinations on every patient who coughed, except the proven tubercular, and every patient, before the bronchoscopy should have at least one sputum examination for tuberculosis bacilli.

There isn't a lesion I have shown you there on that screen that can't be tuberculosis. Don't say that a lesion in the lung can't be tuberculosis because it has certain characteristics. Any lesion in the lung can be tuberculosis. Every patient who coughs and has sputum should have an examination of that sputum for tubercle bacilli.

This increase suddenly came about around the year 1925. From 1920 to 1925, I think I saw one or two cases

of cancer of the bronchus. From 1925 until 1928, I saw fourteen, and at the end of those three years, I told the late Dr. W. V. Mullen, formerly on Dr. Crile's staff in Cleveland, about these fourteen cases. He said, "Why, it is impossible. Fourteen cases of cancer of the lung in a period of three years?" Finally he was convinced and, since I have been in Richmond, Virginia, six and a half months, I have seen fourteen cases of cancer of the bronchus. Those men in Richmond are the usual group of internists who haven't had this thing rammed down their throats. These are cases that have been picked up here and there and somewhere else. But I have seen fourteen cases of cancer of the lung in a period of six months in Richmond, Virginia — and Bill Mullen doubted the fact that I saw fourteen cases in three years back in 1928.

That is the story.

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CONNECTICUT'S NEW MARRIAGE LAW

The Virginia Medical Monthly, June, 1937, comments editorially on the new law in Connecticut requiring a Wasserman test before marriage.

"A sovereign state with power to issue licenses to marry, to declare who shall perform the marriage ceremony, and to deny the privilege of marriage to minors, epileptics and imbeciles, should logically extend its statutory provisions to prevent the marriage of syphilitics. Within the short period which the Connecticut law has been in operation a number of unsuspected syphilitic infections in candidates for matrimony have been uncovered and it has been estimated that from eighty to ninety per cent of the persons so infected had no knowledge of their infection prior to the blood test. Approximately 15,000 persons have been married in Connecticut since the law was enacted. All of them could be certain that syphilis did not lurk in their bodies to produce almost certain domestic tragedy."

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AFTERMATH OF THE FLOOD IN KENTUCKY

The official figures furnished by the Bureau of Vital Statistics of the State Department of Health of Kentucky show that in all the flood area only 363 deaths, which can be attributed, directly or indirectly, to flood conditions, occurred during the period of the emergency. These figures include drownings, accidents, exposures, explosions and the increases in deaths from pneumonia, influenza and heart disease above those which occurred in the similar period of the preceding year, under normal conditions. Two months after the complete recession of the flood waters not a single epidemic of any kind had been reported in any of the 56 counties affected by the flood.

It is no exaggeration to say that no area of equal size ever before emerged from a disaster of similar magnitude with such a small percentage of fatalities, or paid, relatively so small a toll to the diseases which usually follow upon the heels of such catastrophies. It is equally safe to say that never before was outside assistance, governmental and volunteer, ever rushed into a stricken section with greater dispatch or in more generous measure. Certainly, nowhere was there ever, at anytime, more effective protection of the public health than obtained in Kentucky's flood area throughoutthis emergency.
—*Ky. Bull. Dept of Health, April*, 1937.

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AMERICAN BOARD OF SURGERY ORGANIZED

The American Board of Surgery has been organized recently to meet a demand for an agency that will qualify competent surgeons. Together with the other boards already created for the certification of different medical specialties, this board is a member of the Advisory Board of Medical Specialties. It will qualify two groups of candidates, the Founders Group comprising those who have already amply demonstrated their fitness as trained specialists in surgery, and the other group of persons, who, having met the general and special requirements exacted by the board, successfully pass its qualifying examination.

The requirements for admission under either of these groups are many, but in the case of the Founders Group examination is waived and the fee is $25.00. In the other group, known as Group B, there is an examination, Part I written, Part II clinical, bedside and practical. The fee for this group is $75.00. The first examination of this board is to be held on September 20, 1937. Dr. J. Stewart Rodman, 225 South Fifteenth Street, Philadelphia is the Secretary.

Experience with Prontosil and Prontylin*

DANIEL C. PATTERSON, M.D., F.A.C.S.
Bridgeport

Prontosil and Prontylin are proprietary names for the drugs para-amino-benzine sulfonamide and para-amino-phenyl sulphonamide. The drug is now being offered to the profession by different manufacturers under different names, but as we have used only Prontosil and Prontylin I will confine myself to these terms. Sulfanilamide is the non-proprietary term adopted by the Council of Pharmacy and Chemistry by the A. M. A., though the drug has not been accepted as yet.

Prontylin is put out in powder form and in five grain tablets for oral administration. It is insoluble in water but is readily absorbed. Prontosil is in the form of a red die put out in five c.c. ampules for intra-muscular injection. It is also available now in 50 c.c. rubber capped bottles at half the ampule price.

The story of Prontosil follows somewhat closely that of VonEhrlich's discovery of salvarsan, in that its development was the result of a planned effort to find a chemical substance that would destroy streptococci.

Chemists of the German dye trust in 1934, working with a group of dyes called the azo group, producee the drug, and Domag in 1935 experimented with it on mice. He injected hemolytic streptococci into twenty-six mice and in twelve of these he administered Prontosil by mouth. Fourteen mice were used as controls and these untreated mice were all dead in two days, while none of the mice that received Prontosil died. Since this first experiment Domag's results have been confirmed by numerous other workers.

There seems to be some question still as to the action of the drug, but experiments indicate that it acts as a bacteriostatic agent, inhibiting the growth and actually injuring the streptococci. Phagocytosis then controls the infection.

Unfavorable reactions to the drug are not common. Nausea, headache and lassitude have been reported. We have had two cases in which a leucopenia followed its use. In one case the leucocyte count dropped to 3,400; with 2% Polynuclears. As soon as the drug was stopped the count began mounting and in a few days was normal. I think the leucocytes should be checked frequently in cases under Prontosil treatment.

We have had several cases that showed some cyanosis but it cleared rapidly when the drug was discontinued. Sulphemoglobinemia has been reported following its use, and it seemed more than a coincidence that in a majority of the cases reported magnesium sulphate was being used either internally or as a local application. Long advises that no magnesium sulphate be used in patients receiving Prontylin.

Marshall and co-workers at Hopkins working on the problem of absorption and excretion of the drug, found that, "In man the substance is excreted in both the free and the conjugated forms."

"Absorption from the gastro-intestinal tract is rapid, being usually complete, or nearly complete in about four hours."

"In patients when large amounts are administered daily in divided doses, nearly 100% may be recovered from the urine, when equilibrium between intake and output is established. It takes three to four days to establish this equilibrium, and the same time to free the body from the drug after it is discontinued; however, I saw an abstract from the Lancet recently in which an investigator stated that in normal animals, 35% of injected sulfanilimide and 49% of the soluble Prontosil was not accounted for. In the case of insoluble Prontosil, 90% was not recovered. It has been found at autopsies that when the dye preparation is used the tissues are quite generally stained."

*Read before New Haven County Medical Society, New Haven, Connecticut, April 28th, 1937.

"In patients with impaired renal function the drug is excreted more slowly and it should be given with great care in cases of renal insufficiency."

"After oral administration sulfanilamide was found in the cerebro-spinal fluid — also in pleural exudate. There was no evidence that the drug was changed in the dog's organism, and its blood concentration suggests nearly complete absorption from the intestines in three to five hours after oral administration."

They find from their studies of blood concentration of the drug that no advantage is gained by injection administration, therefore the oral route when possible appears to be indicated.

Some of the clinical reports that have been appearing in the literature are worth noting. From the Queen Charlotte Hospital, London, comes a very interesting study of the use of Prontosil in cases of puerperal infection. In 1935 ninety cases were treated in the usual manner, with twenty-two deaths, — or 24.4% mortality. During eight months of 1936 sixty-four cases were treated with Prontosil, with three deaths, or a mortality rate of 4.7%. The average stay in the hospital in the Prontosil cases was eighteen days, while in the non-Prontosil cases it was 31.3 days. Of the sixty-four cases, twelve gave a positive blood culture of hemolytic streptococci. Nine of these patients recovered. In 1935, of the ninety cases there were fifteen deaths from peritonitis, while in the sixty-four Prontosil-treated cases in 1936 only one died from peritonitis. Complications were practically absent and none of the cases required re-admission.

Long and Bliss have reported the results of treatment of seventy patients with infection due to beta-hemolytic streptococci. There were four deaths and only one of these was considered to represent failure of the specific therapy. They believe that forty-eight hours is required before the maximum therapeutic effect is obtained,— therefore early administration is important.

We have been using the drug at the Bridgeport Hospital since December 1936, treating over one hundred cases, and have been most favorably impressed with the results obtained. Its action in some cases has been most spectacular, and seemed alone responsible for saving the patients' lives. There have been seventeen cases diagnosed erysipelas, all of which responded promptly to Prontosil therapy. The temperature dropped to normal in from two to four days, and the rash faded rapidly.

A typical case was that of M.S., aged eight months. He was admitted January 21st with an erysipelous rash of one day's duration, that had spread over one leg. Temperature on admission 103; leucocytes 24,550; polynuclear leucocytes 86%. Blood culture negative. Prontosil-2½ cc. was given every four hours for ten doses; then Prontylin grains 1½ four times daily. The temperature had dropped to 99 on the 24th and remained normal from then on. This has been the usual course in all the cases. There is sometimes a secondary rise in temperature, but this has generally subsided in twenty-four hours.

We found on checking the average length of stay in the hospital, against a like number of erysipelas cases treated before the use of Prontosil, that it was just one-half.

At Englewood, our contagious disease hospital, they informed me they have treated over two hundred cases of scarlet fever since the first of January. There has been a drop in temperature to normal in thirty-six to forty-eight hours. The rash has faded rapidly, and peeling has been greatly reduced. Complications have been seen but rarely. There were a few cases that had swollen cervical glands, but none developed otitis. There was one period of ten days in which they were out of Prontosil, and during this time several discharging ears developed. In the cases that were admitted with discharging ears, the discharge stopped within three or four days after Prontosil medication was started. That reduced their period of quarantine from four to three weeks.

Doctor Applebaum reporting for the Meningitis Commission, stated that of 256 cases of bacteriologically proven streptococcus meningitis only 15 recovered. In 12 similar cases treated with Prontosil, 9 recovered.

I have selected a few of our most instructive cases to report. I thought they might be of interest to you.

E. F., age 7; admitted January 5th, 1937.

On January 2nd had burn of left arm. On the 4th skin reddened. Patient sick. On admission to hospital January 5th, temperature 105; pulse 150. Very toxic. 2nd degree burn left arm. Erysipelous rash over arm and shoulder. Prontosil 5 c.c. every 4 hours and Prontylin 5 grains

every 4 hours started. January 6th, Temperature 105 in A.M.; 99 in P.M. January 7th, temperature 102 in P.M. January 8th, temperature 99; pulse 90. Condition clearing. January 10th, discharged from hospital. No culture obtained.

D. C., age 16 years.

On November 21st, 1936, had submucous nasal resection. On November 29th had fever, sore throat, and rash on arms and legs. Admitted to Englewood Hospital — care of Dr. Stanton Smith on December 1st. Temperature 105. 6,000 units scarlet fever anti-toxin was administered. On the next day temperature dropped to 99. Then began a steady rise to December 8th when it was 106. Blood culture taken on the 9th showed hemolytic streptococci. Prontosil 5 c.c. and Prontylin 2 tablets, were given every 4 hours. On December 12th, temperature was normal. His further recovery was uneventful.

M. W., age 28. Case of Dr. C. Griswold.

Admitted Bridgeport Hospital, February 25th, 1937. Delivered by low forceps same day. Course uneventful until February 28th, when she had a chill. Abdominal pain. Temperature 103; pulse 120. March 1st, temperature 104; pulse 136. March 2nd, temperature 104.5; pulse 140. Prontosil was started March 4th, temperature 99. Blood cultures were negative. Prontosil discontinued on March 9th and on March 14th patient developed thrombo-phlebitis in the left leg. Condition has been slowly clearing up. This patient only received 30 c.c. of Prontosil and 180 grains of Prontylin.

S. H., age 7 years. Case of Dr. M. Cheney.

Admitted Hospital, January 21st, 1937. Illness began January 18th. Sore throat. On the 20th had abdominal pain, vomiting and diarrhea. On the 21st, temperature 102; pulse 120. Leucocytes 51,800. 92% polys. On the 22nd, temperature 105; pulse 140. Leucocytes 83,950; polys 100%. Exploratory laparotomy was done. There was diffuse peritonitis, with thin purulent exudate. A culture of this showed hemolytic streptococci. She was started on Prontosil, 10 c.c. every 4 hours. On January 23rd, temperature was 106; pulse 130. From then until the 28th temperature gradually dropped to 100. She then developed a broncho-pneumonia and the temperature again mounted to 105 and the pulse to 130. On February 13th, she developed bilateral otitis, and though the temperature continued high — being 106 on the 19th — from there it gradually dropped to normal on the 24th, and she made rapid progress to recovery from then on. During her treatment she had 400 c.c. of Prontosil and 450 grains of Prontylin. Blood cultures were negative.

S. R., age 50. Case of Dr. Peters.

Admitted December 29th, 1936 — acutely ill from bilateral otitis following a cold. Both ear drums had been incised, but infection spread to mastoids. Temperature 104; leucocyte count 25,500; polys 82%. The temperature continued at 105 until the 8th when a left side mastoidectomy was done. Cultures from the wound showed hemolytic streptococci, though blood cultures were negative. On Janaury 14th, a right side mastoidectomy was done, and Prontosil was started. On January 15th the patient showed signs of meningitis. The spinal fluid showed 874 cells; 90% Polys; and a growth of hemolytic streptococci. The temperature remained at 105 until the 19th when it dropped to 100. It was normal on the 20th and continued so until his discharge on February 7th.

R. L., age 16 years.

Admitted to Hospital, March 4th, 1937. Two weeks previously developed otitis media on right side. This was drained. A few days before admission he showed signs of mastoiditis on right side. Admitted acutely ill. Temperature 104. X-ray mastoid showed sclerosis. On the 5th, temperature 105.5; pulse 112. Right mastoid cells operned and a culture from pus showed hemolytic streptococci. Prontosil 10 c.c. every 4 hours was started. On the 7th, temperature ranged 103 to 104 and blood culture showed hemolytic streptococci. On the 11th, temperature 104.6; leucocytes 12,900, with 70% polys. Prontosil was discontinued, and two Prontylin tablets were given every 4 hours. On the 22nd — 11 days later — the temperature dropped from 104 to 99, though the blood cultures were still positive. Temperature again rose to 102 and 104. He was transfused on two occasions. On March 26th the blood culture was negative and the temperature began to gradually subside. On April 10th, blood examination showed 3,900 with only 2% polynuclears, and 76% lymphocytes. He was discharged on April 13th.

W. J., age 65 — white — male.

Admitted to Hospital, February 6th. On February 4th scratched his right thumb with a

piece of wire at home. He applied local dressing, but on the following night thumb was swollen and tender and small incision was made by his physician. No discharge. On admission to hospital patient extremely sick. Irrational. Temperature 104; pulse 130. Right thumb swollen, dark, and tense. No suppuration. Lymphangitis to above elbow. Started on Prontosil 15 c.c. every 4 hours, and Prontylin 5 grains. On February 7th throat was sore. Soft palate, red and edematous. Temperature 104; pulse 120; W.B.C. 23,000. Blood culture negative. Polys 89%. On the 8th, temperature dropped to 101; pulse to 100. Mental condition was clear. Patient much improved. W.B.C. 14,150; polys 89%. On the 10th temperature went to 104; pulse 120; rales in both bases. Patient semi-comatose and irrational. W.B.C. 24,150. On the 11th temperature had dropped to 100; pulse to 80. The cellulitis of the arm had disappeared and the condition of the thumb was much improved. The patient was discharged on February 20th at which time he was up walking about and had no complaints. During treatment patient had 255 c.c. of Prontosil and 120 grains of Prontylin.

A.O., age 19.

Admitted to Hospital, January 10th, 1937. On January 6th patient barked left shin when he slipped from the running board of an automobile. On January 8th the leg was stiff and pained considerably. On January 9th it was red, swollen and brawny and he had a high fever. On admission the left leg was red, swollen and very tender. The inguinal glands on the left were enlarged. There was considerable pain in the lower left abdominal quadrant. January 10th, temperature 105; pulse 90 to 100. Started on Prontosil 15 c.c. every 4 hours. January 11th, temperature 104; pulse 90; W.B.C. 18,250; polys 86%. Urine negative. January 12th, temperature 101-102; pulse 90; culture positive for staphylococcus. January 13th, temperature 100.6; pulse 90. Given Prontosil 10 cc. every 4 hours from 8 A.M. to 8 P.M. Prontylin 10 grains 8 A.M.; 1 P.M. and 8 P.M. On January 14th, temperature 98.4; pulse 90. Prontylin continued. January 15th, temperature 98.4; Prontylin continued. January 16th and 17th, temperature and pulse normal. Last dose of Prontylin on the 17th at 8 A.M. — grains 5. Patient discharged from Hospital, January 17th — recovered. During treatment was given 235 c.c. of Prontosil; and 100 grains Prontylin.

The dosage recommended is that during the first twenty-four hours of treatment 1 c.c. of Prontosil for each pound of body weight up to 100 c.c. be given. After the first twenty-four hours, half of this amount is generally sufficient, except in cases of septicemia, where the original amount may be given until the blood culture is negative. It is given in divided doses three or four times daily. When Prontylin tablets are also administered the amount of Prontosil can be reduced. We are giving Prontylin to most of our cases at present, and find the results satisfactory. In severe cases, and in patients with nausea, we still use Prontosil. Some manufacturers are recommending large initial doses of the sulfanilamide — up to 80 or 90 grains. This is in order to get quick concentration. It sounds reasonable, but when cyanosis has been produced by much smaller doses I do not believe these large doses are advisable until more is known about the drug. The makers of Prontosil advise 80 grains in 24 hours as the maximum.

The action of sulfanilamide is specific on the hemolytic streptococci and we have seen no benefit from its use where other organisms were involved. Lately I have heard of good results following its use in gonococci infections.

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PUBLIC HEALTH EDUCATION

The importance of educating the public concerning matters of health has been emphasized by W. W. Bauer, M.D., Director of the Bureau of Health and Public Instruction of the A. M. A., in a recent address before the House of Delegates of the Louisiana State Medical Society. He states that the subject, in its various phases, must be presented repeatedly and by various avenues, for the sake of emphasis, whether the public enjoys the process or not. Already there has been evidenced the use of the radio, the newspaper, the speaker's bureau, and pamphlet. Not all the health information by these media have been entirely correct or complete in statement of fact. The profession must take steps to counteract false impressions thus received, and to offer positive remedy in the way of competent speakers in the various committees on behalf of organized medicine.—*New Orleans Med. and Surg. Journal, June* 1937.

Report of a Case of Hemolytic Streptococcic Meningitis

With Recovery and the Prolonged Use of Prontosil and Prontylin (Sulfanilamide)

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The object of reporting this case is two-fold, first, the recovery of such a fatal disease (considered at least 95% fatal) should be of interest to everyone concerned in the diagnosis and treatment of disease, secondly, the miraculous action of Prontosil and Prontylin in large doses as is shown to be the deciding factor of this fatal disease. Several other reports have appeared recently in the literature (see Journal of American Medical Association in the May 8th issue). A review of this disease will reveal the most gloomy picture. Various authorities have given the mortality as ranging from 95% to 100%, in fact, it has been said once that when one recovered from this fatal disease the diagnosis was very much in doubt.

Prontylin and Prontosil were first brought to my observation about six months ago when at a meeting of the New England Pediatric Association in Boston, a report of 73 cases was given. These cases ranged from Mastoiditis, Puerperal Septicemia, Scarlet Fever, Erysipelas and Streptococcic Peritonitis, but no mention was made of any case of Streptococcic Meningitis. During the past two years various writers have reported their results with the clinical use of Prontosil and Prontylin. A list of these authors is catalogued in the May 8th issue of the American Medical Association Journal. It may be gathered that the opinion of these authors favored the use of Prontosil and Prontylin, of definite value in all cases of hemolytic streptococcic infections. Since that time favorable mention has been made in treating cases of meningococcic meningitis without the use of serum or antitoxin.

A report of case. History — Viola D, age six years, was taken suddenly ill on March 31st, 1937. She was attended by Dr. Harold Higgins of this city who found a mild bilateral otitis media. During the night the child vomited several times, was restless and slightly delirious. This ran for about two days, at the end of which time the pain in the right ear disappeared completely but the left ear still remained mildly painful. Dr. Charles Osgood of this city was called in consultation to look at the ear. His findings were: slightly reddened drum, left ear, with no bulging or obliteration of land marks. He did not consider that paracentesis was necessary and treated the condition expectantly. The child apparently became somewhat better, temperature had fallen and child was apparently comfortable. A few days later, Dr. Osgood was again called in consultation because of the severe left sided headache. Examination showed the ear drum practically normal but tender over the left orbital and submaxillary area. Dr. Osgood suggested X-ray plates to clear up the possibility of sinus infection. These were taken and reported as negative. On April 15th, the child became much worse with increased temperature, left sided headache and extreme restlessness. On this date, for the first time, there appeared a left convergent strabismus. During the day the child vomited several times and apparently became progressively worse. On April 18th, in consultation with Dr. Higgins, I first saw the case. Examination showed a full blown irritative meningitis and hospitalization was advised.

Physical Examination — The child lay in bed in a semi-stupor. There was a moderate degree of pallor with an alternating flush in both cheeks and with a most resigned expression. Examination showed a bilateral Kernig, positive Brudzinski, moderate hyperesthesia and strabismus of the left eye. Both ear drums were normal and pressure over the sinuses was essentially negative.

Past History — She had measles and whooping cough, chicken pox in early childhood and occasional attacks of croup, and in February, 1937, she complained of a generalized headache and would snuff the nose continually. I stress this fact because in consultation later with Dr. Alexander Tertius Martin of Roosevelt Hospital, New York, he considered the portal of entry of infection as through the ethmoid cells.

Course and Treatment — Upon admission to the Hospital, a spinal puncture was done and 30 c.c. of a moderately cloudy fluid were obtained with a moderate increase of pressure. A pedicle was formed within two hours. A direct smear made from the centrifugated specimen showed 4,800 cells gram positive diplococci and streptococci. Blood count showed a white cell count of 27,000 large lymphocytes 28, 1 monocyte, 70% polys and 2 non-segmented forms. The child was immediately given 2 tablets of Prontylin every 2 hours. At the time of entrance to the hospital the temperature was 104 by rectum. Another lumbar puncture was done and 15 c.c. of spinal fluid withdrawn, cloudy, but no pressure. Cyanosis at this time made its first appearance. The strabismus was more marked, and the patient was mentally confused. At this time a blood transfusion of 275 c.c. of blood and 200 c.c. of saline was given into the vein of the right arm. Color became somewhat improved. At this time CO_2 combining power of the blood was done and was found to be 29, showing a marked acidosis. Sodium bicarbonate was given by mouth in order to combat this acidosis, which it did to some degree. Two days later CO_2 combining power was 41.9. It was felt by us that the Prontylin was responsible for this condition. Dr. L. LaPierre of this city saw the child in consultation for the condition of strabismus and he reported a paralysis of the left external rectus and an episcleritis which was probably toxic. On April 25, Dr. Alexander Tertius Martin of the Pediatric Department of Roosevelt Hospital was called in consultation and after an exhaustive examination he reported as follows: "Clinical signs are those of a meningitis with slightly stiff neck, positive Kernig and Brudzinski, cyanosis, probably due to Prontylin. Patient is alert and responsive and does not appear very ill. Ear drums are normal. Pharynx is quite red. Heart and lungs, clear. No petechiae. Negative spleen. No lymph adenopathy. Nose — area of redness approaching the ethmoid cells." Dr. Martin recommended Prontosil, 5 cc. instramuscularly, every four hours and Prontylin, 5 grs. three times a day every 8 hours. Daily spinal drainage as indicated. He also recommended a blood transfusion with the donor being a previous case of streptococcic septicemia. Fortunately, we had just such a case, a young man discharged two months previously who had a Ludwig's angina and who was treated by Prontylin. Following this course of treatment, the patient improved daily, save for a sharp reaction following the blood transfusion of 300 c.c. of blood. The next day the temperature dropped down to 102, and except for slight morning exacerbations temperature returned to normal five days following the course of treatment. During this continual bathing of the body by Prontosil and Prontylin a strange fact happened. The cyanosis, instead of becoming more severe actually became less. During this time the patient was immeasurably improved, bright, cheerful, becoming conversational for the first time and with improved appetite. Four days later she had another rise in temperature to 102.4 by rectum. This was followed the next day by a sharp drop to 99. The next five or six days the temperature was practically normal with continued clinical improvement, so much so she was allowed up in a wheel chair and taken out in the fresh air. Following this event her temperature again rose to 103.4, but the next day it dropped to normal. This rise was considered emotional. Her improvement continued and she was discharged on the 27th hospitalized day. Since that time she has made continued improvement at home being up and around and out in a wheel chair. At this date she is apparently well and the strabismus is less marked.

Comment — Aside from the recovery of a former fatal disease, one of the outstanding factors to me is that very little harm was done apparently from huge doses of Prontylin and Prontosil. Our line of attack with the drug followed closely that advocated by the Boston men of giving 1 c.c. Prontosil per pound and ¾ gr. Prontylin per pound. We were considerably disturbed at one time by the deep cyanosis but a communication from Dr. Perrin H. Long of Baltimore telling us not to stop our use of the drug even in the presence of deep cyanosis

quieted our fears. The total dosage of Prontylin was 500 grs. and that of Prontosil was 360 c.c. To date apparently no harm has been done although we are watching the case with anxious eyes, being reminded of the fact that the drug contains a benzin ring. We are told that this cyanosis is of a chemical nature, and we have also been reminded of the fact that a few cases of plastic anemia have been reported. Again we are reminded that acidosis is a rather common accompaniment following the use of the drug. This was controlled somewhat by bicarbonate of soda. Needless to say, this is an important factor to watch out for. Naturally, we feel very much elated over the fact that we have apparently a suitable weapon to fight a most dreaded disease with practically a mortality of almost 100%. Again, apparently the sting of the dreaded streptococcic infection is curbed by the event and use of Protynlin and Prontosil.

In conclusion, a word of thanks must be tendered Drs. S. Segel, J. Dushane, G. Goulazian, the resident physicians at the W. W. Backus Hospital, Dr. Maurice Moore and his able laboratory technicians, for their invaluable and efficient assistance. Without their help we possibly may not have had the happy ending.

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MODERN MEDICAL ORGANIZATION

The Journal of the Arkansas Medical Society, May 1937, contains a very poignant article by Mac F. Cahal, Executive Secretary of the Inter-Society Radiological Committee. Because of its timely interest we quote at length:—

"One of the greatest encroachments upon the domain of the private practitioner has been from the public health departments of our government. . . . I think it would be better if the profession would so organize itself as to assume the duties of public health now being executed by the public health department." . . .

"The field of preventive medicine provides, I believe, the real answer of the profession to the demand for state medicine." . . .

"Every social insurance law in every country has been passed, not at the instance of working men, but as the brain child of a group of mendacious politicians who saw a chance to gain popular support of their party by holding out a sugar plum to the rabble who fill the ballot boxes with votes." . . .

"All social insurance is unemployment insurance, whether it be to protect the working man against loss of income by periodic lay-offs, old age, or sickness." . . .

"More than forty-two countries now have some form of social insurance including so-called security against one or all of the causes of unemployment." . . .

"So the myth of social legislation was born in America. Our people are suffering from a moral epidemic little different in most respects from the earlier epidemics of prohibition, mah jong, or pee wee golf." . . .

"The fact that families on relief enjoy a sixty per cent higher rate of fecundity than the country at large, does not diminish the problem." . . .

"There can be no social security when good and useful citizens who have made their mark by dint of their own effort are threatened and harassed by a bunch of bureaucrats who want to run their business and their every day lives. It is not only captains of industry who are being assailed, it is doctors, and lawyers, tradesmen, and others who have achieved some measure of security and comfort and who, for that very reason, are beginning to regard their government as an alien and hostile power." . . .

"The most powerful pressure group in the political picture of America today is composed of the indolent, thriftless, biologically unfit blood suckers who are living on the State." . . .

"I think we will continue to drift toward an abysmal chaos of mediocrity in which the capable are reduced to the level of the mediocre. This is an unmistakable trend in civilized government and soon or late it will have to run its course." . . .

"With a good proportion of the medical needs already being supplied by the government by paid hirelings, through veterans bureaus, crippled children's societies and public health agencies, with a score of new bureaus employed in the practice and barter of law and half the lawyers working for the State, with one in every twelve citizens drawing a gratuitous subsidy from the government, the spectre of socialization in America ceases to be a threat; it becomes almost an actuality."

Carcinoma Developing in Uterus After Irradiation Menopause*†

CATHARINE MACFARLANE, M.D., F.A.C.S.

An eminent surgeon once said: "*When* a cancer is treated is far more important than *how* it is treated. We all know that when a cancer is treated depends upon when it is diagnosed. The fate of the patient with cancer thus depends upon early diagnosis.

Unfortunately there are no pathognomonic symptoms of cancer of the uterus. An irritating vaginal discharge or atypical uterine bleeding mean very little to the average woman of menstruating age. Ignorance and indifference postpone her visit to the doctor.

The only striking symptom of cancer of the uterus is post menopausal bleeding. Bleeding from the uterus after the physiological menopause is a truly dramatic event. As a rule, this symptom soon attracts the patient's attention and arouses the physician's diagnostic skill.

Bleeding from the uterus after the irradiation menopause is not so striking. The menopause may have been induced for a bleeding myomatous tumor or for the bleeding of estrin hyperplasia. The return of bleeding suggests inadequate treatment and persistence or recurrence of the original cause. A repetition of treatment seems indicated. So great is our faith in the cancer destroying properties of irradiation that the possibility of cancer developing after irradiation is usually far from our thoughts.

The fallacy of this view point was brought home to me for the first time several years ago by the tragic fate of a patient whose history I will relate in detail.

In 1914, when 44 years old, Mrs. A. T., consulted her physician on account of profuse periods. A myomatous tumor of the uterus was found "the size of a loaf of bread." Operation was advised but refused. The growth of the tumor was arrested and an artificial menopause induced by a series of X-ray treatments given by Dr. George E. Pfahler.

After fifteen years of amenorrhea, (June, 1929) the patient (then 60 years of age) had a fall. This was followed by a slightly blood-stained vaginal discharge. Upon examination, I found the abdominal wall densely infiltrated and covered with scaly, ecchymotic skin as a result of the previous irradiation. The uterus reached half way to the umbilicus. It was nodular and freely movable. A moderate degree of endocervicitis was present which seemed adequate to account for the slightly blood stained discharge. The possibility of malignancy did not occur to me because of the previous massive irradiation. The patient asked if she might safely go on a world cruise and I said yes.

The discharge continued. Three months later (in September 1929) during my absence from the city the patient was again taken to Dr. Pfahler. He curetted her, without anesthesia. The scrapings were reported negative for malignancy. An intra uterine application of radium was made.

The blood stained discharge continued. Six months later (in January 1930) the patient returned to me. A curettage was performed under ether with great difficulty because of the distortion of the uterine canal. Scanty scrapings were obtained. An intra-uterine application of radium was made (1800 mg hrs). A few days later adeno-carcinoma was reported in the curettings. I then performed a panhysterectomy with bilateral salpingo-oophorectomy. Unfortunately this was done six months too late. The large bowel became obstructed. A colostomy was performed. The patient died of her cancer after three months.

Thus, in this patient, adeno-carcinoma of the uterus developed fifteen years after X-ray treatment of a myomatous tumor.

My second experience with carcinoma of the uterus following irradiation came recently. The history of this patient also seems worthy of reporting in detail.

*Presented at the luncheon of the Women's Medical Society, Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19-20, 1937.

†From the Department of Genecology, Women's Medical College of Pennsylvania.

Mrs. Alice L., a white widow, 60 years of age, was admitted to the Hospital of the Woman's Medical College on September 18th, 1936. She gave a history of intermittent flooding spells for thirty-four years.

When she was twenty-six years of age she was delivered spontaneously of a full term child. She was kept in bed six weeks after this delivery — cause unknown. This birth was followed by intermittent flooding spells which were stopped by tampon treatments.

When she was forty-seven years of age (in 1923) flooding spells recurred. These were stopped and an artificial menopause was induced by twenty X-ray treatments given by Dr. Gross at the Mary Packer Hospital.

Five years after the X-ray menopause (in 1928) when the patient was fifty-two years of age, she had a free bleeding spell at the time of her husband's death. This was followed by intermittent flooding every six to nine months. For two years before admission she had had a brownish discharge. In April 1936 she was told that she had a tumor and operation was advised. She refused this and continued to bleed at intervals. In September 1936, after bleeding profusely she consented to operation.

On September 17th, 1936, I removed a papillary cyst adenoma of the right ovary about the size of a grape fruit. Owing to a severe nasopharyngeal irritation, the patient took the anesthetic so badly that nothing more could be done. Her recovery was uneventful.

Three months later she returned giving a history of recurrent uterine bleeding every two or three weeks. Under cyclopropain anesthesia, the uterus and the remaining ovary and tube were removed. An adeno-carcinomatous mass filled the cavity of the body. The left ovary was small and wrinkled.

Thus a well developed adeno-carcinoma was found in this patient's uterus fifteen years after the X-ray arrest of climacteric bleeding.

While the conduct of these two cases presents several points which are open to criticism and which might be discussed with profit, the fact to which I particularly invite your attention is the development of carcinoma in two uteri fifteen years after X-ray castration.

Apparently this is a rare occurrence. In a series of 7808 women in whom the irradiation menopause had been produced by such eminent gynecologists as Werner of Vienna, Dehler of Erlangen, Vogt of Tubingen, Schroeder, Pankow and Heinrich Schmitz, carcinoma developed in only twenty-three or 0.29 per cent.

The incidence of carcinoma of the uterus in unirradiated women is about four per cent so that irradiation seems to inhibit its development rather than to stimulate it.

In 1927, Hans Dehler reviewed the literature of this subject and reported fifty-seven cases of carcinoma of the uterus following the X-ray menopause and five cases following the radium menopause. I have been able to add seven cases to this list.

One case reported by Naujoks and Hoffman (Zentralblatt f. Gyn 1934) and my own two cases bring the number of cases following X-ray menopause up to sixty.

One case reported by H. Schmitz (Am. J. Roentgenol 1935), one case reported by Fournier of Strasburg and two cases reported by Strahnan (J. Ob. and Gyn. of British Empire, Aug. 1936) bring the number of cases following radium application up to nine.

Of these sixty-nine cases, post irradiation carcinoma developed in the body of the uterus in fifty-five, in the uterine cavity in twelve, in both body and cervix in two.

The interval elapsing in forty-seven cases between the irradiation menopause and the discovery of cancer of the uterus varied from three months to fifteen years.

How soon discovered	
Less than one year	— 10 cases
one year	— 4 cases
two years	— 11 cases
three years	— 7 cases
four years	— 5 cases
six years	— 1 case
seven years	— 4 cases
nine years	— 3 cases
ten years	— 1 case
fifteen years	— 2 cases

The discovery of cancer within one to two years after an irradiation menopause for a supposedly benign condition leads to the inference that an error in diagnosis may have been made. Carcinoma in an early stage was probably present in twenty to thirty of these cases at the time of

the irradiation treatment. Significant in this connection is the fact that a pre-irradiation diagnostic curettage was performed in only seventeen cases. In all of these seventeen the microscopic report was negative for malignancy. The impossibility of thoroughly curetting the uterine cavity distorted by myomatous tumors will account for some of these negative findings. In several of these cases, after malignancy was discovered a careful revision of the original slides showed that malignancy had been present in those slides but had been overlooked.

From this brief review of this interesting subject we may draw the following conclusions.

CONCLUSIONS

1. Carcinoma may develop in the uterus after the X-ray or radium menopause as well as after the physiological menopause.

2. Bleeding from the uterus after the menopause, irradiation as well as physiological, must be attributed to carcinoma until proven to the contrary by the microscope.

3. In spite of negative findings under the microscope, persistent bleeding from the uterus after an irradiation menopause indicates radical intervention.

701 Medical Arts Building,
Philadelphia.

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ST. ANTHONY HOSPITAL, LABRADOR

The Journal acknowledges the receipt of the annual report of St. Anthony Hospital, International Grenfell Association, Labrador, for the year 1936. It shows a total number of patients treated in the hospital during the year of 830. The average number of hospital days per patient was 22 with the average cost per day, per patient amounting to only $1.70. Pulmonary tuberculosis plays a large part in the hospital work. Of particular interest are a total of 422 pneumothoraces done. In addition to 2,564 patients "seen at the hospital", 1,095 were visited by boat and 672 by dog team. These statistics give but a meagre picture of all the Mission stands for in the lives of the Labrador fishing folk.

THE MEDICAL INFORMATION BUREAU OF NEW YORK ACADEMY OF MEDICINE

In view of the recently formed Medical Information Bureau in Hartford County the following from the Report of the Medical Information Bureau of the New York Academy of Medicine (Bull. N. Y. Acad. Med. April 1937) should be of interest.

During the calendar year 1936 the Medical Information Bureau received and handled 5,691 inquiries, an increase of 33 percent over 1935.

The newspapers use the Bureau to check on the authenticity, and to evaluate the "news element" of medical items. The press in some cases, attaches riders or sub-heads, giving the critical judgment of the Academy, thereby reducing the potential harm of the item if it is in error and yet has too large an element of news in it to be completely rejected.

The weekly and monthly magazine publications make use of the Bureau's facilities, frequently in the nature of requests to review articles submitted to them by lay writers or medical authors.

The inquiries received from free lance writers on medical subjects have increased continuously.

The Bureau serves the newspapers, magazines and radio stations of New York City in reviewing advertisements offered to them for publication. It serves the Better Business Bureau and the Federal Trade Commission in securing expert medical judgment concerning patented remedies and the like.

The Bureau conducts several more direct educational services — radio talks, a daily news column, and Lectures to the Laity. During 1936 it scheduled and arranged for delivery of 404 radio talks over 11 radio stations. It prepared and issued through the Associated Press 300 daily health articles. Lectures to the Laity is a series of monthly lectures to the public initiated in 1935.

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OSTEOPATHS LOSE NARCOTIC PERMITS

The Commissioners of Internal Revenue, Washington, D. C., ruled on April 9, 1937, that osteopaths will no longer be entitled to receive narcotic permits. As a result no new permits have been issued osteopaths after that date. All permits in force at that time lapsed on June 30th.

A Consideration of Acute Purulent Otitis Media*

E. R. ROBERTS, M.D.

This paper is based on a study of two thousand five hundred consecutive acute purulent middle ear infections, in private patients, and records my observations. It aims to refresh your memory on some angles in everday otological problems.

Acute suppurative or purulent otitis media is that condition in which the mucosa of the middle ear becomes infected. This infection is promptly followed by an inflammatory reaction of such violence as to result in this space becoming occupied, or partly so, by an infected fluid. This condition is commonly dubbed an acute middle ear abcess.

Roughly, this space is bounded mesially by the labyrinth; laterally by the tympanic membrane; inferiorly by a thin plate of dense bone, separating it from the jugular bulb; superiorly by the brain plate; anteriorly it is in close relation with the cartoid artery and contains the tympanic opening of the eustachian tube; posteriorly it is in relation with the mastoid proper, facial nerve, and the aditus ad antrum.

This infection is always secondary, invasion being possible in two ways. The first is from the post nasal space, by way of the eustachian tube, over its mucosal surface, or through its perivascular lymph spaces, and passes more or less rapidly, to use text book terminology, through stages of tubal catarrh, tubo-tympanic congestion, and acute catarrhal otitis media. The second route is through excretion as a part of the defensive mechanism in systemic infection frequently complicating influenza, scarlet fever, measles, rheumatic fever and septicemia of non-otitic origin.

Predisposing causes are infections of the past nasal space, the tonsil, the adenoid, and the nasal accessory sinuses. These infections are aggravated by mechnical obstruction of developmental or acquired bony malformations, soft tissue hypertrophies, and rarely new growths in the upper respiratory spaces which interfere with proper ventilation of the nose. Susceptibility to systemic infections, especially those involving the respiratory tract is another factor.

The age in this series ranged from early infancy to 72 years. Purulent middle ear disease is more common in early life, influenced by the frequency of acute contagious disease and the presence of adenoid tissue in the post nasal space.

While organisms involved in these infections vary somewhat in their clinical importance, it is to be remembered that each case is a study in itself.

In infections by the naso-pharyngeal route, the inflammatory reaction results in early closure of the eustachian tube. The contained air in the tympanic space is absorbed, or partially so, resulting in subnormal or negative pressure. Effusion follows. Complicating blood stream infections, the same takes place, but in the reverse manner. This inflammatory response is shared by the aditus ad antrum and often the mastoid cells. Swelling of the mucosal linings of the aditus encourages posterior extension of disease through direct continuity or surface or venous thrombosis. Such pathology explains the persistence of mastoid infection with bone destruction, and subperiostial abscess after the middle ear abcess has resolved.

The middle ear mucosa swells to many times its normal thickness, blocking drainage into the external canal, occasionally prolapsing through openings in a drum membrane, especially if such openings are non-surgical. Without proper treatment this condition is a forerunner of chronic suppuration.

Although acute purulent otitis media presupposes the presence of infected fluid in the tympanum, its quantity is not always sufficient

*Read before the Bridgeport Medical Society, December 1, 1936.

to cause a bulging of the drum membrane. To the examining eye there may not present a convex surface at any point in its contour. The degree of inflammatory reaction is sometimes trifling. The drum membrane sometimes is without inflammatory color, though lusterless, with many, if not all, normal landmarks showing in the presence of well developed suppuration.

Temperature and pain after an acute onset are important when present, but absence of these symptoms is no assurance that the case is progressing satisfactorily.

Not infrequently, children who tolerate a moderate amount of discomfort and tinnitus, are irritable, restless at night, losing weight, doing poorly in school, finally present with a full blown surgical mastoiditis with an intact drum membrane.

Some degree of deafness is always present. Too infrequently detected in a unilateral process.

The essential diagnostic point is the determination of the presence of fluid behind the tympanic membrane.

Absorption of a certain amount of fluid can take place with physical recovery but with a functional defect, the result of adhesions which interfere with ossicular mobility. This circumstance may account for a large part of the deafness in the child of school age.

I make a distinction between spontaneous rupture and perforation of the drum membrane.

Spontaneous rupture, an infrequent event, (5% in this series) occurring relatively promptly and depending directly upon intra tympanic pressure, is a tear of some length, through all layers of the drum membrane. It will serve as an efficient substitute for myringotomy, if of sufficient length and properly located.

Perforation, a more frequent event, (13% in this series) occurring relatively late, depending only to a slight degree upon intra tympanic pressure, is essentially a destructive phenomenon, within the drum substance. It is a pin point opening utterly inefficient wherever located, as a substitute for myringotomy, effecting little more than an equalization of pressure on the two sides of the drum.

There were, when first seen, 2055 unperforated tympanic membranes of which 103 (1 in 20) developed extension necessitating mastoid operation; and 445 in which nature had attempted drainage, of which 71 (1 in 6) developed extension necessitating mastoid operation.

There were 11 otitic deaths, 2 of septicemias, 8 of bacterial meningitis and 1 of brain abscess.

The duration of these fatal illnesses varied from 2 days to 6 months.

Of these 11 deaths, 4 were in the unperforated drum and spontaneous rupture groups (1 in 544), 7 in the spontaneous perforation group (1 in 46).

There were 5 facial palsies, 2 of which were in tubercular patients. Of the remaining three palsies, 2 presented before any kind of aural drainage was established. One is only partially recovered after 13 months, treatment being refused; the other lasted 2 weeks. The third occurred 8 weeks after recovery, and lasted 4 weeks. Of the palsies in tubercular patients, one occurred in a laryngo-plumonary patient who died, the other in a patient with a bilateral aural infection who recovered, but with absolute end organ deafness.

All living patients, except 3, had closed drum membranes with practical normal hearing at the conslusion of their first illness. In subsequent infections, two developed what looks like permanent perforations.

In otitic septicemia, including those moribound from the outset, the mortality approximates 50%. Proof that the occasional recovery from bacterial meningitis is the result of any specific treatment is lacking. Upon proper localization, timing, encapsulation, and freedom from a complicating meningitis, depends recovery from brain abscess.

No definite conjecture can be made, during any reasonable period, in the absence of certain middle ear signs and signs and symptoms of mastoid destruction, that complete resolution of the middle ear inflammation may not take place. I have observed an ottorhea persist as long as 16 weeks with ultimate physical and functional recovery. It must be remembered, however, that the mastoid operation may be indicated for the preservation of hearing and the prevention of chronic discharge.

A saline purge, and a sound night's sleep, thorough hypnotic and analgesic drugs, seem at times abortive treatment, but this can not be judged by continued relief from pain as this often results from a pressure or toxic sensory paralysis.

The ear douche may macerate the external

surface of the drum membrane so as to present a confusing picture in the determination of early treatment and later encourage the development of a furunculosis or eczema.

Antibacteriocidal drugs used in a douche are without effect, as in the early stages of drainage none of the fluid enters the middle ear. Later, if resolution is taking place, the douche may reinfect the tympanum from the external auditory canal.

The douche amounts only to the deep application of heat, the good effects of which are more than offset by its stimulating effect on drum membrane closure, at a time when this event is least desired.

Suction added to the aural douche, aggravates existing middle ear pathology and tends to produce artificially one of the most dependable signs of surgical mastoid disease, the socalled "prolapse" of the canal wall.

The ice bag is contraindicated.

In the presence of profuse, irritating discharge little matters except protection of the external skin by a heavy ointment. With moderate discharge, dry wiping and the use of gauze wick drains for the effect of capillary action serve a useful purpose.

"Ear drops" are without favorable effect.

Preparations used are combinations of hydroscopics and local anesthetics of the phenol group, affecting only external epithelial surfaces, or narcotic solutions which have no effect on the unbroken skin.

The essential treatment of acute suppurative otitis media is myringotomy to be repeated as indicated. Only in the very earliest stages will paracentesis suffice.

Summary and Conclusions: A brief review has been presented of the anatomy, mechanism of invasion, incidence, bacteriology, pathology, atypical signs and symptoms, the occasional course, diagnosis and progonsis in acute purulent otitis media.

Two thousand five hundred infections in private practice have been analyzed as to behavior, and the end results recorded.

Emphasis has been placed upon indications, contraindications, and effectiveness of treatment.

By rupture of the tympanic membrane, in otitic suppuration, nature may institute safe and efficient treatment.

Perforation suffices occasionally but there is added risk of mastoid extension and fatal outcome.

Reasons are given discouraging the use of the aural douche and pointing out the pharmocological reasons why drugs used in solution in the ear are without effect.

Facts are presented showing the influence of surgical drainage, as contrasted with nature's efforts, from the standpoint of complications and recovery.

Decompression and drainage by early incision is the principle and essential treatment.

Medical Building
Bridgeport, Conn.

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A NEW JOURNAL

The Journal of the South Carolina Medical Association (April, 1937) announces the advent of a new journal, "The Review of Tumor Therapy", to be published monthly at Charleston, S. C. It is to deal with malignant diseases only, and aims to give practical information regarding treatment by gathering the most recent methods from the largest medical centers. It will carry articles, reports, and studies of an applicable nature, and will provide a department of abstracts. The staff of contributing editors is composed of leaders from many of the large medical centers. A complete prospectus may be found in the Journal of the South Carolina Medical Association kept on file by your Editor.

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BASIC SCIENCE LAWS

The Basic Science Bill of Michigan passed the legislature and was signed by Governor Murphy on May 27, 1937. It is said to be "a fair, impartial and workable measure".

The Colorado General Assembly, after eight years of increasing effort on the part of the medical profession, passed a Basic Science Law which was approved and signed by Governor Ammons on June 1.

Basic Science Laws now exist in nine states. They are as follows, with the year of enactment: Arkansas, 1929; Connecticut, 1925; Colorado, 1937; Michigan, 1937; Nebraska, 1927; Oregon, 1933; Washington, 1927; Wisconsin, 1925.

Reorganization of the Department of Anesthesia

At Hartford Hospital, Hartford, Conn.

A Preliminary Report*

RALPH M. TOVELL, M.D.
Chief of Department of Anesthesia, Hartford Hospital, Hartford, Conn.

During 1936, arrangements were made for the employment of a professional anesthetist on a full time salary basis. The duties of the incumbent were to include reorganization of the section on anesthesia, supervision of blood transfusions, intravenous therapy, oxygen therapy and resuscitation. The plan included the training and teaching of anesthesia to internes, and physicians choosing anesthesia as a specialty. This work was undertaken by the new director of the department, Sept. 15, 1936.

During the 1936 fiscal year (Oct. 1, 1935 to Oct. 1, 1936), 764 transfusions of blood were done, of these 150 were done by the direct method and 614 were done by the indirect method. All direct transfusions were done in the operating room, and an operating room charge was made. For the indirect transfusions blood was formerly obtained from the donor on the ward on which the recipient was a patient, and each set for this purpose was prepared on that ward. It was recognized that this arrangement prevented uniformity of method of preparation of sets. Indirect transfusions are still given on the ward but donations are made in the operating rooms. Both donor's and recipient's sets are prepared and sterilized there. Suction bottles have been discarded, and new needles of sufficiently large caliber have been procured. The operating room charge for direct transfusions has been reduced and a small charge for indirect transfusions has been established. Transfusions can now be given with greater facility and with less danger of untoward reaction. The method of matching blood by typing and cross matching remains the same and as in former years flocculation tests are made on all donors.

During 1936, sterile distilled water and physiologic saline solution were prepared on the operating room floor in pyrex glass containers. Intravenous sets were prepared on individual wards. They consisted of a Kelly jar and a delivery tube with a Murphy drip inserted. When glucose solution was ordered, the glucose was added on the ward from ampules containing 50 cc. of a 50 per cent solution. A charge to cover the cost of these ampules was made to the patient, but during the Great Depression this charge was not made when the solutions were administered while the patient was on liquid diet. By this ruling, the hospital assumed responsibility for the cost of approximately three quarters of the ampules.

This system had been recognized to be unsatisfactory for the hospital, the physician and the patient. For those patients paying for their ampules of glucose, the cost was excessive in certain instances. The physicians felt that the method was not without its hazards and the hospital authorities recognized that a large deficit was occurring in this department annually. Within the last 6 months, a room for the preparation of intravenous solutions has been established on the operating room floor. Dextrose and sodium chloride are now bought in bulk and the solutions are fully prepared before they arrive on the ward. The system of administration devised by Walter at the Peter Brent Brigham Hospital has been adopted and a modified system for preparation of the fluids has been devised. Cost of preparation of these fluids has been materially reduced and a charge for all patients has been established. This charge is based on a flat rate per administration whether

*Read before the Section on Anesthesia, Annual Meeting, Connecticut State Medical Society, Bridgeport, May 19-20, 1937.

it be of 500 cc. of saline or 1500 cc. of a 5 per cent solution of glucose in saline. A maximum charge for intravenous solutions for ward, semi-private and private patients for any one period in the hospital has been set. This protects the unfortunate individual who must receive frequent administrations over a long period. Nevertheless it is calculated that the department will henceforth be self-sustaining financially. The new method of centralized preparation assures the patient of uniformly satisfactory and safe medication at a lower cost.

Eight oxygen tents of standard manufacture were owned by the hospital in September, 1936. These were used constantly to the maximum of their efficiency. A system of testing for concentration of oxygen and carbon-dioxide has been established. It is interesting to note that when soda lime is not used a 3 per cent concentration of CO_2 may be present when the concentration of O_2 is 50 per cent. It has been found that the checking of these concentrations has drawn to the attention of the nursing service the necessity for a constant regard for detail in the care of patients in an oxygen tent.

During the past winter, an epidemic of pneumonia swept the city and many of the patients were sent to the hospital for treatment. It was realized that the eight oxygen tents would be insufficient to cope with the demand for oxygen therapy. Ten outfits for the administration of oxygen by the intranasal catheter method were purchased. These units are of a new and improved type and they were given first clinical trial at Hartford Hospital. They are capable of providing adequate humidity for any flow rate up to 15 litres per minute. Patients seldom, if ever, complain of a dry throat even after prolonged administration of oxygen by this method. The nursing service finds that nursing care may be carried on more efficiently than when an oxygen tent is employed. A review of a comparative series of cases reveals that the catheter method of administration is equally as effective as administration by means of oxygen tents. During the epidemic of pneumonia the 18 units were all needed to take care of the peak load. The original cost of the catheter units was $350., whereas the same number of tents would have cost in the neighborhood of $3500. The maintenance of the catheter outfits is much less expensive than for the tents. The saving to the hospital and to the patients has been worthwhile. The intranasal oxygen outfits are now being used more frequently than the tents are. For children, administration of O_2 is usually by the tent method. The administration of oxygen intranasally during the immediate post-operative period is growing in popularity because experience leads us to believe that it is a valuable prophylactic measure guarding against pulmonary complications.

An active interest has been taken in methods of resuscitation and throughout the past six months several patients have been treated. Several mechanical resuscitators of different types have been examined and one will be purchased and stationed in the accident room. This machine is constructed to supply regulated positive and negative pressures. Another apparatus built to supply intermittent positive pressure will be purchased for the resuscitation of new born infants. These machines have been on trial at the hospital for the past six months. For the care of premature infants arrangements have been made to convert our Hess incubators into oxygen chambers when occasion demands it. An infant resuscitator of the Drinker type, manufactured by Emerson, is now being given clinical trial in the management of premature infants that are too debilitated to carry on adequate respiration without the aid of the machine. A Drinker respirator for adult patients is available and it is kept in constant readiness for use. Several small units for the administration of mixtures of oxygen and carbon dioxide are available for use on the wards. In order to induce hyperventilation in patients during the post-operative period, or during an attack of hiccough, it has been found that the patient's nose is the most satisfactory method. The catheter is a large one of the retention type, with an enlargement at the end. It can not be inserted into the nose and the nurses are instructed never to put the end in the patient's mouth. The conscious patient will turn away from the catheter as the typical reaction to the administration of carbon dioxide develops. The flow of gas is accurately controlled by a needle valve in the tank yoke.

In anesthesia the first problem confronting me was one of equipment. Of the sixteen gas machines in use, only four were adequately designed for the employment of the carbon-dioxide

absorption technique. Consideration was given to this problem and it was decided that new absorbers would be purchased for six of the machines. The four machines with absorbers were modified to permit the use of cyclopropane. Six machines were declared obsolete and four new machines were purchased to replace them. These purchases were divided among three manufacturers. Uniformity in equipment was sacrificed in order to have on hand models of four well known manufacturers. It was felt that this policy was desirable in order to provide the best conditions for the training of residents in anesthesia. In order to obtain the most favorable price for gases, where the size of the operating room permitted it, large tank outfits were purchased. The difference between the price of gases purchased in large and small tanks justifies this policy in hospitals where the machines need not be frequently transferred from one section of the hospital to another. Oxygen in small tanks costs 8 times more per gallon than oxygen delivered in large tanks. By buying nitrous oxide in large tanks the cost per gallon is one-third less than the cost per gallon of nitrous oxide procured in small tanks. All the machines now may be used for the administration of cyclopropane but it is not planned to introduce the use of ethylene. Four of the machines are calibrated for helium.

On Sept. 15, 1936, the department was "manned" by nine nurse anesthetists and one student anesthetist. One interne was assigned to anesthesia each month. The course for the student anesthetist was extended from seven months to one year, and at the end of her course, her services were not retained. She has since forsaken anesthesia for duty as an operating room supervisor. Two more anesthetists have resigned.

The training of physicians who are interested in anesthesia as a specialty, has been inaugurated and has become a part of the policy of the department. On Feb. 1st, 1937, a physician from a neighboring town joined the staff as a half-time voluntary worker. This arrangement is to continue for one year. Since then three physicians have been added to the personnel of the department. Two of these have had previous training in anesthesia, while the third is a newcomer to the specialty. For those who have had previous training, a one year's residency has been arranged and for the new-comer, a two year residency has been outlined. Arrangements have been made for the addition of one more physician to the department's personnel. He will arrive July 1st, and it is likely that a second physician will begin his residency at that time.

A complete analysis of the trends in anesthesia at this time might be misleading when based on only six month's experience at Hartford Hospital. There are, however, certain trends already definitely evident. The annual report for 1936, is the source for the data in Table I.

Of the 9,096 anesthetics administered by inhalation, 935 were administered by physicians and of the 935, 798 were administered by internes. In Table II, the decreasing use of ether by either the open or closed method is indicated. The open method of administration is now seldom employed except for tonsillectomy, and for plastic operations about the face in infants, or young children. The use of intratracheal anesthesia seems to have reached a fixed degree of popularity but it is hoped that the method will meet with increasing popularity. In the fiscal year of 1936, 41 anesthetics were administered by the intravenous route. In the present half year under discussion, pentothal sodium has been employed 426 times. The drug and the method of its employment seem to deserve increasing popularity. The author has no reason to believe that the popularity of this derivative of barbituric acid will decrease throughout the next six months. The use of avertin as a basal anesthetic continues but it is gratifying that it is employed less frequently than formerly. The variation in the number of obstetrical cases each month is not great. For the production of analgesia during the early hours of labor, the administration of sodium amytol or pentobarbital sodium in combination with scopolamin remains the most popular method. When the pain increases in severity, nitrous oxide and oxygen is administered intermittently. Formerly open ether was employed during delivery for those patients for whom anesthesia could not be established without the production of cyanosis. Ether has been discarded and cyclopropane is now employed for the production of anesthesia during delivery. The babies cry spontaneously with much greater frequency than they did formerly, and it is seldom that resuscitation is either necessary or difficult. In the field of

regional anesthesia, Table IV, it may be noted that the anesthetist is to a certain extent taking over responsibility from the surgeon. Brachial plexus block has become employed only where it seemed particularly indicated. An increase in the use of intravenous anesthesia for minor operations about the neck and the frequent use of intratracheal anesthesia for major operations involving the same area, have been responsible for the infrequent production of anesthesia by means of cervical block. The method is still the one of choice for surgical procedures within the larynx and for ligation of an esophageal diverticulum. Abdominal block has been found to be a satisfactory method for producing anesthesia for the ligation of veins at the groin, and for the repair of an inguinal hernia in patients that are graded poor risks. The method is employed preliminary to inhalation anesthesia for an exploratory laparotomy when the patient is either aged, debilitated or cachectic. Spinal anesthesia has been employed with satisfaction for those patients for whom relaxation is the prime requisite. It has been used with greater frequency for operations within the lower abdomen than for operations within the upper abdomen. A combination of pontocain and procaine, in which the maximal dose of pontocain is 15 mg. and the maximal dose of procaine is 50 mg., is used. If relaxation is successfully produced by the spinal anesthesia, its main purpose has been achieved. It is preferable to employ supplementary inhalation anesthesia to cover the pain engendered by manipulation of viscera rather than give a larger dose of pontocain or procaine which may not be an entirely safe procedure.

I wish to express my appreciation for the reception I have been accorded at Hartford Hospital by members of the medical staff and of the administrative staff. The cooperation that I have received has been of the highest degree. A diversity of method has been attempted and it has been sufficiently achieved, I believe, to warrant the establishment of residencies in anesthesia.

TABLE I

ANESTHETICS ADMINISTERED 1936

Inhalation	9096	Intravenous	41
Regional	95	Obstetrical	1855
Intradural	200	Basal (avertin)	880

TABLE II

SUMMARY OF GENERAL ANESTHETICS ADMINISTERED

From Oct. 1, 1936 to March 31, 1937

Types	*Oct.*	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*March*	*Total*
Inhalation	588	502	490	451	423	482	2937
(a) Ether open	136	110	87	72	49	88	
(b) Ether closed	200	152	130	112	107	72	
(c) Intratracheal	14	11	16	12	19	12	
Intravenous	39	48	42	76	88	133	426
Basal (avertin)	44	31	34	14	17	28	168
Obstetrical	156	138	160	143	149	184	930
Total	827	720	726	684	677	827	4461

TABLE III

INHALATION ANESTHETICS*

Oct. 1, 1936 to March 31, 1937

	Oct.	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*March*	*Total*
Visiting Physician	10	5	3	0	0	0	18
Resident Physician	10	7	10	5	35	95	162
Interne	61	30	24	12	0	22	149
Nurse	507	461	453	434	388	365	2608
Total	588	503	490	451	423	482	2937

*Obstetrical anesthetics are not included.

Distribution of anesthetics according to administrators.

TABLE IV

SUMMARY OF REGIONAL ANESTHETICS ADMINISTERED

From Oct. 1, 1936 to March 31, 1937

	Oct.	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*March*	*Total*
Surgeon's Local	92	79	80	70	47	65	433
Resident's Regional	56	85	92	105	63	98	499
(a) Field Block	13	15	9	17	17	25	96
(b) Brachial Plexus Block	1	0	1	0	0	1	3
(c) Cervical Block	0	1	0	0	0	0	1
(d) Abdominal Block	3	23	12	23	10	16	87
(e) Sacral Block	0	6	2	4	6	3	21
(f) Spinal	39	40	68	61	30	53	291
Total	148	164	172	175	110	163	922

AGE BEFORE BEAUTY

An unsubstantiated but uncontradicated tradition has always credited the Westchester County Medical Society, at least as far as its own members are concerned, with being the oldest county medical society in the United States. The newspaper publicity following the Society's 140th anniversary celebration brought to light the fact that there are eight county societies in the State of Connecticut all of which were founded prior to 1797 and have been in continuous existence since their founding. Further, they were consolidated in 1792 in the formation of the Connecticut State Medical Society which was chartered by the Connecticut General Assembly in that year. There is some evidence, not entirely substantiated, that the Litchfield County Medical Society was organized as early as 1767.

These facts have been brought to our attention by Dr. Creighton Barker, Administrative Secretary of the Connecticut State Medical Society and we are very happy to print this information and to express our regret for the misinformation concerning the priority of our own Society which has been so frequently reiterated in the past few months.

Dr. Barker has very graciously accepted our expressed apologies and has quite too modestly suggested that "since we do not have much but antiquity we guard that very closely and would prefer Westchester to wear her justly deserved laurels of other kinds." The gentleman from Connecticut has surely done everything in his power to relieve our embarrassment!—*Westchester Med. Bull., June*, 1937.

Presidential Address*

DANIEL C. PATTERSON, M.D.
Bridgeport

It is a great pleasure for us of Fairfield County to have you here for the annual meeting, and we trust in addition to the splendid program that has been prepared, we have been able to make you feel at home. There is no reason why any member of the Association should feel that he is among strangers.

This Association has been going steadily forward for many years,—growing in size, and in the importance of its work. The men who have guided its affairs in the past have done their work well, and we are reaping the benefits of their labors. Until one sees the inner workings of the Society, he little realizes the time and thought that the members of the Council give cheerfully to the many problems that must be solved to keep the machinery running smoothly and the interests of the members protected.

I don't know that the Council of the past year is any better than preceding Councils, but I can testify to their whole-hearted devotion to their duty as your representatives, and to their ability in managing the affairs of the organization. The Chairman, Dr. Gold, has been called on for extraordinary labor, and has responded with alacrity and ability to every call. As you know, we have had a new plan of administration since last Spring. There has been an Executive Secretary, Dr. Barker, whose duties seem to be manifold,— in fact, he is sort of a catch-all into whose lap every conceivable piece of business of the Society is dropped. Under his skillful guidance things have gone right, and he has done a great amount of work in a very smooth and efficient manner. The central office of the Society, at 258 Church Street, is under his direction, and any member looking for information — whether it be technical or administrative procedure, is urged to make use of the facilities of the office.

The office of Legislative Secretary has been most capably filled by Dr. Comfort. He has had a busy session. Few of us know much about the channels of legislative procedure at Hartford, but Dr. Comfort does, and you can rest assured that the interests of the Society have been carefully looked after. It has meant a great sacrifice of time on his part, but this he has cheerfully given.

The Secretary with scientific portfolio — Dr. Weld, has done splendid work in getting out the Journal. This has been no small task, and the duties are increasing steadily. Beginning with 1938 the Journal will appear monthly, and as during the past year, will be delivered free to members of the Society. Dr. Weld welcomes contributions of manuscript, news items, gossip, and even advertising from the members.

The excellent program which has been arranged for this meeting was under his supervision. He would like to have members submit papers for the next annual meeting, and I trust he will receive a generous response.

The thanks of the Society is also due to the Chairmen and members of the different committees that have been so active this past year.

Personally, I do not believe that the affairs of this Society could be handled by a full time lay secretary as well as they have been under the present set-up. No layman could have the same appreciation of our problems, that our practicing secretaries have. However, we must realize that it may not always be possible for our secretaries to give so much of their time to the demands of their respective offices.

The Clinical Congress of the State Medical Society should be a source of great pride to us, and our thanks are due to those responsible for its successful operation.

I want to express to Doctor Osborn, our State Commissioner of Health, our appreciation for his splendid cooperation with our Society. I know he has had many vexing problems to face, but I feel that he has settled them in a way that has earned the confidence of all.

As President, it has been my pleasant privilege to attend once or twice during the year, meetings of all of the County Societies, and they have been instructive and enjoyable. Splendid papers have been presented, and the affairs of the societies have been administered in a highly satisfactory

*Read at the Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19-20, 1937.

manner. The attendance at these meetings, while not 100%, has been generally large. We should all work to keep the County societies going strong, for they are, of course, the basic units of the State Association. I think the scientific programs at the County meetings, in many cases, could be enlarged with profit to all.

I have attended several meetings of the associated tumor clinics, and they were of a very high order. Much good should result from this work. We are a compact State, with nearly all of our population quite easily reached. There appears to be no valid reason why we should not take the lead in cancer prevention work. This means getting the facts about cancer to the people, and spurring the members of the profession to be constantly on the lookout for its earliest signs. Thorough periodic physical examinations should be advised to all the people, sick or well.

While we cannot be held responsible for the people who do not seek advice, we are gravely responsible for those who do, and sadly we must admit that many cases are under observation for some time before the seriousness of their condition is discovered, and a cancer that could have been cured six or seven months previously, is beyond any chance of relief. This is particularly true of rectal and uterine cancers. Patients will frequently make light of their complaints when in the doctor's office, and try to persuade the doctor that an examination of the pelvic organs or rectum is unnecessary. Such an examination, however, is very necessary, and should be insisted upon. The patients cannot but have respect for the man that thoroughly examines them, and refers them for consultation or laboratory study if he is not satisfied with his own findings.

The deaths from tuberculosis in this State have been cut in half since 1900, notwithstanding a doubling of the population. This has been brought about by attention to early diagnosis, and efficient treatment. It is possible that thru the work of our tumor clinics the mortality of cancer can be similarly reduced.

The establishment of a State cancer hospital, along the lines of such institutions in some other states, would be of immense value to us, not only for the treatment of such cases, but for the study of the disease. Such an institution should be centrally located, manned and equipped for the best work. However, the principle line of attack to my mind is thru the ranks of the general practitioner, who might well ask himself each morning, "Can I find a case of cancer today?"

Your Society has voted to approve the principle of prepaid hospital service that does not include medical services. I think this is well, as such insurance appears to be already well established, and all we can do is to try and keep it in a proper channel. The inclusion of medical service, even tho it be that of a salaried member of the hospital staff, will set a bad precedent, for it will prove the entering wedge to a gradual extension of professional service until the contractors will be selling our services to their subscribers, and the freedom of medical practice, or as we know it "The American System" will be no more.

To my mind this is the most serious economic problem facing the profession today, and we must not be caught napping. The fact that the contracts of today do not invade our particular field is no reason for avoiding the issue. Our ox may be the next one to be gored.

Insurance of any kind is a good thing, and I think it is especially desirable against the sudden and unpredictable onslaught of sickness expense. If subscribers wish to insure against medical expense, large group policies could probably be written at rates much lower than the prevailing ones for health insurance, but the medical profession should not be tied up in any way in the contracts. The insured person is paying his own way, and his relations with his physician should not be prescribed by a third party.

No one will deny that proper medical care for all the people is a "consummation devoutly to be wished", and as doctors I believe we are doing all we can to see that they get it. However, there are some no doubt well-intentioned people who seem to think that our method of practice is very inadequate and selfish, and that we should be regimented, paid a living wage and our services dispensed here or there on the written order of some lay supervisor. These great leaders are all living on, and have accumulated their wealth from the labors of their fellow men. No one begrudges them the fruits of their industry and ability, but if the plight of the needy brings tears to their eyes, why don't they sell all that they have, and give it to the poor? If these agitators gave in money a sum equal to the value

of the unpaid-for services that doctors render gladly, adequate medical care could be had by all. A short time ago one of their member who once referred to our society as a bunch of Robin Hoods — was taken sick in a country where the doctors are regimented to the nth degree. Was he content to be treated by a doctor functioning under his pet theory? Not by any means, according to press reports — specialists were summoned from Berlin, and the then president of the American Medical Association was called in to treat him. I just mention this to point out the inconsistency of some of the prophets.

Fortunately we have benefactors who give immense sums of money to aid the sick. Were it not for the thousands of these generous disciples thruout the country, our hospitals, as we know them, would be non-existent. In a way we are their agents, and they have a right to take account of our steward-ship.

We should bear in mind that sickness expense is always a burden to most of our patients, and while every means that can be employed for the benefit of the sick should be used, some thought must be given to making their financial load as light as possible. There are many ways of doing this, and we might well keep them in mind.

I fail to understand the reason for this sudden excitement over the care of the sick. No one desires awakening of the public conscience to the needs of the poor more than the doctor, but I doubt if more than 5% of our people are really without adequate care,— but in this country we have 36,000 deaths from automobile accidents in a year; we have thousands of preventable suicides; and the daily press records crimes so shocking that one is unable to contemplate them. Why not concentrate on these preventable conditions of such vital importance?

If one were asked to state the first move in a program for more adequate care of the sick, I believe he would unhesitatingly say, "Clean out the hovels in which such a large part of our people live, and see that they get sufficient food." Such a procedure would probably cut morbidity rates in half, and possibly the incomes of some reformers. Why this problem of slum clearance, and inadequate food has not received more attention is hard to understand. Much of the money spent on relief could well have been applied to this work, and it would no doubt have paid big dividends in healthier and happier people. I have strayed a bit from my subject, but I fail to see why these gentlemen who are so concerned over the welfare of their fellow-men can overlook such a fundamental and obvious fact — that the living conditions of a person have much to do with his state of health, both physical and mental. It should be part of our better health program — to clean out the filthy dens which abound in all our cities. Doctors, welfare workers, and bill collectors know these places, but few others do.

Agitation is rife for the establishment of compulsory health insurance or State medicine in this Country. It is hard to find the fountain head of many of these movements, but it is probably known to all of you that plans to launch this ill-advised procedure are already completed, awaiting only a time and tide favorable to its proponents. The demand for this type of medical service has not come from the sick, or from those who care for the sick, but is the figment of the imaginations of more of the false prophets. Judging from the reports of the operations of such plans in other countries, they have certainly not provided better care for the needy.

In these schemes the worker pays approximately ten dollars a year, the employer about thirty-three, and the government fifteen. Three-quarters of this sum is to go for medical care and the rest for sick benefits. But out of the fund must come the cost of administration, which in England amounts to more than one-half the sum paid for physicians' salaries.

The evils of such a program are apparent to anyone who will give it serious thought, and I doubt if it can be successfully carried out in this country. Very few of our people enjoy poor health, and when sick their greatest wish is to get well. They are not going to be content with a superficial examination, and a stock prescription, which appears to be the extent of panel treatment across the water. I believe they will continue to consult the physician of their choice, whether he be on a panel or not.

As the French say — "We shall see what we shall see." It is for us to go about our daily tasks with honesty of purpose as our guiding motive. Sir William Osler gave as his first personal ideal —"To do the day's work well, and not to bother about tomorrow." To it he said, "I owe whatever success I have had to this power of settling down to the day's work and trying to do it well, to the best of my ability, and letting the future take care of itself."

Association of Connecticut Tumor Clinics

Proceedings of Meeting Held at Waterbury April 22, 1937

PATHOLOGICAL ASPECTS OF CARCINOMA OF THE CERVIX AND FUNDUS UTERI

J. O. Collins, M.D.

During the years 1931 to 1936 inclusive, the Waterbury Hospital, a general hospital with a rated capacity of 321 beds, admitted 66 cases with a clinical diagnosis of carcinoma of the cervix. In twelve of these cases, histologic confirmation of carcinoma is lacking, and the recorded date in the patients records are so sketchy as to leave one in doubt as to the actual pathology present, leaving only 54 cases suitable for analysis. Forty-three of these patients were admitted in the five year period from October 1, 1931 to October 1, 1936. During this period total admissions to the hospital amounted to 25,478. Thus, during this period, cancer of the cervis accounted for only .17% of all hospital admissions. When we consider the relative infrequent occurrence of cancer of the cervix in the experience of the general practitioner or surgeon we can understand the lack of enthusiasm with which so many of them view this subject. But since a favorable outcome in cancer of any part is so dependent upon early diagnosis and treatment, it behooves everyone engaged in the medical practice to be on the lookout for such cases, and to keep in mind the signs and symptoms suggesting the presence of cancer.

The symptoms complained of by the 54 patients with carcinoma of the cervix included in the present study appear in Table I.

TABLE I — Symptoms

Symptoms abnormal	Number of patients in which symptoms appeared
1. Vaginal Bleeding	48
2. Pelvic Pain	12
3. Vaginal Discharge	5
4. Weight Loss	2
5. Backache	2

It will be noted that by far the most frequent symptom is some form of abnormal vaginal bleeding. This may be anything from very scant spotting to profuse hemorrhage. It may be menorrhagia, metrorrhagia, bleeding after coitus, or irregular bleeding after the menopuase. It would seem that this symptom would be more alarming to women past the menopause than to those before the menopause. However, in the present study, 64% of those developing symptoms before the menopause sought medical advice and treatment in six months or less, whereas only 53% of those beyond the menopause saw a doctor in six months.

The duration of symptoms before admission is shown in Table II.

TABLE II — Duration of symptoms

Time	Number of cases
0-6 months	28
6-12 months	8
12-18 months	5
18-24 months	5
Over 2 years	8

The large number of patients delaying a visit to their doctor more than six months after the onset of symptoms would seem to verify the contention of the American Society for Control of Cancer that cancer education for the lay public is indeed to be desired. In all cases but one, the first visit to a doctor was followed very shortly by a correct and verified diagnosis. One 81 year old patient who complained of occasional vaginal bleeding and spotting over a period of one month was advised to use douches, which she did for two years before a correct diagnosis was made. One other case was improperly studied and operated upon for an incorrect diag-

nosis. All others were diagnosed promptly and had treatment instituted soon after their first visit to the doctor.

Miscellaneous etiologic factors are considered in Table III. As to age, the greatest incidence is seen to be in the 5th decade. Thus cancer of the cervix seems prone to develop at a slightly younger age than does cancer of the fundus. Childbirth seems to be the most important single etiologic factor. In the present study, of the 42 patients for whom data were available, 37 or about 86% had borne children, while 14% were nulliparous. Tompkins, analyzing 6412 cases reported by 14 authors in the United States from 1913 to 1934 found that 9.6% were nulliparous while 90.4% had borne children.

There were six cases in which cancer of the cervical stump developed after supravaginal hysterectomy. In four of these, the preoperative diagnosis was fibroid uterus. One was operated upon because of repeated uterine hemorrhage, and one because of pelvic and back pain and irregular uterine bleeding. This patient had a fear of cancer of the uterus following the death of her mother from the disease. Her uterus, after removal, was reported essentially normal by the pathologist. At the operation, the cervical canal was packed with iodine gauze but was not cauterized or biopsied. The patient began to bleed again two years later, but delayed seeing a doctor for still another year when a profuse hemorrhage left her almost exsanguinated. An advanced carcinoma of the cervix was found.

TABLE III — Etiologic Factors

A. Childbirth

Number of children	No. cases
5 or more	9
4	7
3	7
2	7
1	7
None	5
Not recorded	12

B. Age at onset

Decade	No. Cases
30-40	6
40-50	18
50-60	16
60-70	12
Over 70	2

C. Hysterectomy before onset....6 cases

D. Family History

Positive	4
Negative	30
Not recorded	20

E. Relation to Menopause

Onset before menopause	14
Onset after menopause	33
Not recorded	7

No data were available on the treatment of the cervix at time of hysterectomy in the other 5 cases. It would be interesting to compare the incidence of cancer in the cervical stump in those patients whose cervices have been thoroughly cauterized or coned out at the time of hysterectomy with the incidence among those who had no such treatment. As to the relative incidence of carcinoma of the cervix among women who have had supravaginal hysterectomy and those who have not, there seems to be little statistical data available. The question was put to Dr. Schiller on the occasion of his visit to Hartford in December 1936, and he stated that so far as he knew there was no difference.

Data relating to family history are too sketchy for consideration.

Table IV lists the various therapeutic procedures with the number of times each was employed. It is seen that radium application was used in all cases but two. One of these was operated upon on an erroneous diagnosis and died post-operatively. The other had a very extensive lesion in the 4th stage and was given palliative X-ray in the hope of relieving pain.

TABLE IV — Treatment

Procedure	No. cases used on
Radium	52
X-ray	28
Cauterization	5
Hysterectomy	4
Intraspinal alcohol for intractable pain	6

Table V lists the recorded complications and spread of the disease. The two cases developing generalized metastases each had tumors of grade IV malignancy.

TABLE V — Complication and Extension of Disease

Complication	Cases recorded
1. Hydronephrosis	6
2. Fistulae	5
3. Extension to bladder	10

4. Extension to vagina 15
5. Extension to rectum 8
6. Generalized metastases 2

TABLE VI — Pathology

Type	No. cases
Adenocarcinoma	2
Squamous Cell:	
Grade I	2
Grade II	32
Grade III	15
Grade IV	5

Table VI shows the type of pathology encountered in the 54 cases studied. It is seen that adenocarcinoma occurred only twice, constituting only 3.7% of the series. Norris reviewed the literature and found adenocarcinoma in 5.7% of 9509 cases of cancer of the cervix. Boyd states that about 4% of all cancers of the cervix are adenocarcinomas. Where adenocarcinoma appears in currettings it may be difficult or impossible to determine by histologic study whether it arose in the cervix or in the fundus. Adenocarcinoma of the cervix is famous for the wide variety of histologic sub-types it may produce. Thus where adenocarcinoma is found in currettings, the gross anatomical features of the case must play a large part in establishing the site of origin. Ordinarily of course, adenocarcinoma in such material means cancer of the fundus whereas squamous cell carcinoma usually means cancer of the cervix.

It is, of course, impossible to talk of end results in this group of cases, but in an attempt to gain some information as to the prognostic value of histologic grading and of clinical grading, tables VII and VIII were compiled. The cases are divided into 31 patients admitted prior to October 1, 1934, and 23 patients admitted after October 1, 1934.

TABLE VII

Grade of malignancy and prognosis

Prior to October 1, 1934

Grade	No. cases	Living	Dead	Untraced
I	2	0	2	0
II	18	10	8	0
III	8	5	3	0
IV	3	0	2	1
Total	31	15	15	1

After October 1, 1934

Grade	No. cases	Living	Dead	Untraced
I	0	0	0	0
II	14	8	3	3
III	7	5	2	0
IV	2	0	2	0
Total	23	13	7	3

The number of cases in the series and the time elapsed since treatment are insufficient to allow conclusions to be drawn but examination of these two tables gives one the impression that the clinical stage of the disease at which treatment is instituted is a more important prognostic sign than is grade of malignancy. However, it will be noted that all the cases of grade IV malignancy are dead, long before a five year period has elapsed. Also the percentage of survivors in grade III is greater than the percentage in grades I or II, suggesting that grade III malignancies of the cervix may be more radiosensitive than the other grades. This, of course, is only an impression. As to the clinical grading, the findings are just what we would expect, namely, the more advanced the lesion at the time treatment is instituted, the less are the chances of survival.

TABLE VIII

Clinical stage as prognostic sign

Prior to October 1, 1934

Stage	No. cases	Living	Dead	Untraced
1	4	3	1	0
2	4	3	0	1
3	10	2	8	0
4	1	0	1	0
Unclassified	12	7	5	0
Total	31	15	15	1

After October 1, 1934

Stage	No. cases	Living	Dead	Untraced
1	1	1	0	0
2	4	2	1	1
3	10	6	3	1
4	1	0	1	0
Unclassified	7	4	2	1
Total	23	13	7	3

Only three cases in the group came to autopsy, most of those who died having done so outside the hospital. Of those coming to autopsy, one

had general metastases, one had no grossly recognizable cancer, but died of ureteral obstruction and pyelonephritis which proved microscopically to be due to carcinomatous extensions in the para ureteral lymphatics, and the third died of peritonitis 2 years after treatment. In this case, a pure culture of nonhemolytic streptococci was found in the abdomen and its portal of entry was not determined. No cancer could be found either grossly or microscopically.

Summary and Conclusion

A preliminary study of 54 cases of carcinoma of the cervix treated at the Waterbury Hospital from 1931 to 1936 inclusive is presented. No conclusions can be drawn because of (1) the small number of cases, (2) the short time elapsed since treatment and (3) the incompleteness of recorded data in some of the cases.

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UROLOGICAL ASPECTS OF CANCER OF THE CERVIX

Dr. H. J. Stettbacher

Cancer of the Cervix is primarily a local disease. It is by its extension to adjacent parts that it exerts its influence on the urological tract. The nature of the presenting urological effects of cervical cancer are dependent on that portion of the cervix first involved. The anterior lip cancer will extend sooner to the urinary bladder than to the broad ligament where it there effects the ureters. Just so will the cancerous lower or lateral lip growth involve the broad ligaments before reaching the bladder. These involvements by extension are, however, relative. All adjacent parts will become affected the later the stage of the disease.

The urinary bladder is frequently invaded by cancer of the cervix and may occur relatively early if the original lesion begins on the anterior lip. But usually bladder involvement is a late manifestation. This involvement of the bladder wall is first noted by digital vaginal examination as a thickening and induration of the bladder floor. By cystoscopic examination the mucosa of the affected area is seen covered by bullous oedema. Later with progressive growth nodules are to be seen projecting into the bladder. These at first are covered with mucous membrane, but eventually they break down as sloughing cancerous masses, which in turn lead to vesico-vaginal fistulae. Usually, however, before such fistulae result, infection has occurred and an ascending upper urinary tract infection is the common sequel. Such urinary tract infection is one of the common causes of death from cancer of the cervix.

When the posterior or lateral lips are involved the extention of the cervical cancer is primarily up the broad ligaments. With this extension the ureters become involved resulting in their obstruction, at first partial but as the process progresses complete obstruction of the ureters results. Secondary renal infection and death from uraemia occurs.

From 50 to 60% of all deaths from cancer of the cervix are the result of renal infection and renal insufficiency.

The symptoms of bladder involvement are frequency, urgency and painful urination. With the later erosions hematuria will be noted. Finally discharge of urine from the vagina when a vesico-vaginal fistulae has resulted. The intense suffering of patients with cancer of the cervix late in the disease is caused in almost every case by broad ligament extension with ureteral obstruction.

The treatment of urinary tract complications are those of cancer of the cervix itself. That is, first, complete eradication of the early cancer by surgery or radiation therapy before urinary involvement has occured. Later when such extensions have occured radiation treatment will occasionally cure and often slow up these extensions. I believe that repeated cystoscopic examinations and pyelograms are most important in the follow up of cancer of the cervix. In this way involvement of the ureters can be recognized. The ureters may be kept patent by dilatations. It is the concensus of most urologists that obstruction of the ureters is due to the cancer and seldom to post-radiation fibrosis. It should be noted here that over treatment with radium often causes injury to an otherwise uninvolved bladder, just as in the case of the rectum. Some cases of post radiation vesico-vaginal fistulae are attributed to such distruction of the bladder wall. Of course it may be argued that eradication of the cancer is the primary concern in the particular patient and that secondary bad results are inconsequential. This is true. But the possibility of injury and excessive fibrosis of an otherwise uninvolved bladder should be born in mind

in the treatment of these cases. For cases of obstruction of the ureters ureteral transplantation to the external abdominal wall has occasionally been done. But unfortunately cases favorable for such treatment are infrequent.

To summarize: Urinary tract involvement and urosepsis are frequent terminal results of cancer of the cervix. These conditions result either from extension of cancer of the cervix to the bladder or to the broad ligaments with eventual occlusions of the ureters. The extent of broad ligament involvement should be checked by frequent cystoscopic examinations.

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X-RAY TREATMENT OF CARCINOMA OF CERVIX AND FUNDUS UTERI

Joseph L. Harvey, M.D.

The treatment of tumors of the pelvis, like other X-Ray treatments, depends upon the dosage. Those present who are familiar with radiation therapy will excuse me for going back to fundamentals. I wish to review various factors which determine the X-Ray dosage. The principal ones are — distance, filter, K.V.P., percentage depth dose, time, M.A., field, r per minute, interval, and total r. These factors are all inter-related, but dealing with them one at a time, I would say briefly that:

1. The dose varies inversely as the square of the distance; that is, the greater the distance, the less radiation the skin receives, (but the percentage depth dose is increased.)

2. Filter. The heavier the filter, the smaller the dose, (but the percentage depth dose is likewise increased).

3. K.V.P. The dose varies as the square of voltage; that is, the greater the kilovoltage used, the greater the dose administered.

4. The percentage depth dose depends chiefly upon the preceeding three factors; that is, the greater the density, the heavier the filter, and the greater the K.V.P., the greater would be the percentage depth dose.

5. Time. By many, this is considered the one essential factor, but it has its place only among the ten. The dose varies directly as the time; that is 10 min. would give twice as much x-radiation as 5 min.

6. M.A. The dose varies directly as the milliamperage. 20 M.A. will give four times as much radiation as 5 M.A.

7. Field. The size of the field is an important factor. The smaller the area treated, the greater the amount of radiation that can be given. The larger the field, the greater the percentage depth dose. It takes four 10 by 10 cm. fields to put the same amount of radiation into the pelvis that one 20 by 20 field gives. These cases are not exactly similar because while the amount of radiation is the same, the distribution will be different.

8. The r per minute. The intensity of the X-Ray beam is a factory which is under investigation at the present time. Evidence has been accumulated which shows that the rate at which an X-Ray dose is given is an important factory, although no unanimity of opinion has yet been arrived at. A comparison can be made with cooking. A steak fried with a very hot fire tastes quite different than one cooked on a slow fire, although they may both have received the same number of B.T.U. It is very probable that 100 r given in one minute will have a somewhat different effect than 100 r given in 10 min.

9. Interval. The fractionation of dosage is a very important matter. For example, dividing a total dose of 2000 r into daily dosage of 200 r each, giving the total dose in ten days, or leaving a day's interval between doses, and giving the total dosage in 20 days, much less severe skin reactions will be encountered in the latter case.

10. Total r administered to one field, and the total r given to one port are the most important factors. To a large port, it is probable that the dose should not exceed 2000 r; with small ports that amount can be proportionately increased.

These ten items are some of the factors which go to make up the X-Ray dose, and to understand thoroughly the question of X-Ray treatment of pelvic conditions as well as its application to other parts of the body, each of these factors and their inter-relation with one another must be thoroughly understood.

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RADIUM THERAPY IN TREATMENT OF CARCINOMA OF CERVIX AND FUNDUS UTERI

C. L. Larkin, M.D.

The treatment and cure of cancer of the cervix and body of the uterus was at a low ebb before the discovery of X-ray in 1895 by Roentgen and the later discovery of radium in 1898 by

Pierre Curie and his wife, Marie. These two discovered that radium was continuously giving off powerful radiations and some of these were so penetrating that they would pass through opaque substances through which ordinary light could not pass. It was found that heat and light were being constantly produced by radium and that at least three rays known as the alpha, beta and gamma rays were also being continuously thrown off. It was found by trial that these alpha and beta rays when applied to tissue caused a destruction and sloughing of the superficial layers but the gamma rays were so penetrating that when used properly they would pass through the superficial layers without doing much damage and destroy cancer cells lying deep in the tissue. The problem therefore was to eliminate the alpha and beta rays and allow the deep curative gamma rays to reach the cancer cells. This was easily accomplished because alpha and beta rays are easily absorbed by such opaque substances as brass, copper, aluminum, platinum, rubber, etc. By placing the radium element inside tubes made from any one of these opaque substances or combinations of them radium could be used as a curative agent.

At first the supply of radium was so small and so costly that only a few physicians had a chance to experiment with it in the curing of cancer. It wasn't until 1913 that the first radium salt was brought to this country. Dr. Howard Kelley of Baltimore and Dr. James Douglas of New York realized the possibilities of radium and they quickly formed an organization in this country for mining radium. Since 1914 radium has been available to those few in the profession who were able to pay the price.

Dr. Chas. H. Brown, one of the leading surgeons in this community was able to buy 100 mgms. of the radium element and since 1917 we here in Waterbury have been fortunate to have had radium for treating our cancerous lesions. Our radium is split up into two tubes of 25 mgms. each and 10 one-half inch steel needles containing 5 mgms. each. This combination allows us to use the radium in various ways.

Usually when we are treating a cancer of the cervix or fundus uteri we give a course of deep x-ray therapy, then we use radium placing the 25 mgm. tubes inside a brass tube of 1 mm. thickness and encasing this in a rubber tube of 1 mm. We insert this directly inside the uterine canal, then we place the needles in similar brass and rubber containers and insert this into the cervical canal. The tubes are an inch and a half in length and by this method we plan to have the radium element in close application to the whole uterine cavity and cervical canal from the fundus to the external cervical os. We usually leave this 100 mgms. of radium in place for 30 hours or 3000 mc. hours. Of late we have established the routine of repeating this dose after a ten day interval.

If the cancer is the fungating or cauliflower type involving just the cervix and vaginal vault it is our custom to place both the 25 mgm. tubes of radium inside a special cervical applicator made with a density of 1 mm. of brass and 1 mm. of aluminum. This applicator consists of a tube into which the two 25 mgm. tubes are placed and this screws into a hollow semicircular container large enough to hold the ten 5 mgm. steel needles. The tube which is one and a half inches in length is shoved into the cervical canal and the top fits closely against the external surface of the cervix. In this way the cervix receives a cross fire of gamma rays for thirty hours. This application is followed within ten days by another treatment for 30 hours, this time the radium being again placed in the rubber and brass containers described above.

The unscreened needles are used to destroy the metastatic nodules in the vaginal walls which are too far distant from the radium applicator to receive a lethal dosage of radiation. Black thread is tied to the needles and the needles are buried directly into the nodules being placed about one and a half to two cms. apart from one another. These unscreened needles will destroy all tissue surrounding them for a distance of 1½ cms. if they are left in place for 6 hours.

The technical difficulties in using radium are not great but one must be sure not to use radium if the patient is running a temperature and shows signs of local infection or pelvic cellulitis. Radium used under such circumstances increases and spreads the infection which may be fatal. It also causes localized gangrenous sloughs around the area treated and may cause bladder and rectal fistulas. Another precaution to take is to pack gauze into the anterior and posterior

vaginal fornices to keep the bladder and rectum as far away as possible from the cervical applicator. It is also our policy to insert a retained catheter into the bladder and allow it to remain there for the duration of the treatment. By these means we rarely cause proctitis or cystitis or bladder and rectal fistulas.

The question of dosage and the length of time that it is to be given has not been absolutely decided but it is generally agreed that the maximum dosage applied to any one area should not exceed 6000 to 7000 mc. hours of radiation. Anything over this dosage is liable to cause fistulas.

Radiation therapy properly applied gives certain definite reactions in the tissue treated and the surrounding structures. Used as we use it the gamma rays will have lethal effect on cancer cells for a distance of about 1½ inches and no further. The cancer cells within this radius disintegrate and disappear within one to three weeks and lymphocytes, leucocytes and plasma cells invade the treated area in great numbers. These are replaced within a short while by fibrosis.

There has been a great deal said about classifying cancers of the cervix into four groups according to whether the cancer is clinically early or advanced. Practically there is no need to bother about this because all cancers of the cervix are treated the same except the very advanced ones which are not given any treatment at all because radiation makes them more miserable and hastens their death.

Our problem is not how we shall treat early cancer of the cervix or fundus. These could be all cured by the methods outlined above. Our problem is how we are to kill the cancer cells that have already metastasized to lymph glands in the parametrium and pelvic floor and are out of the 1½ inch range of our gamma rays. Only 10% of the cancers of the cervix are classified clinically as early and it has been proved time and again that half of these only seem early because the pathologist finds the parametrial glands invaded in 50% of these so-called early cases.

About 90% of the cancers of the cervix when they come into the hands of competent physicians are clinically in the advanced stage. This being so I am sure that while the scientists are fighting amongst themselves whether the radium should be applied in small quantities over a long period of time or given in one or two massive doses within a short period of time the cancer cells that are already beyond the range of their radiations will continue to collect their 75% of mortality.

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CANCER COUNCIL TO GIVE PUBLIC ADVICE

Dr. C. C. Little, managing director of the American Society for the Control of Cancer, announces the organization of a Cancer Council, as a clearing house of information on combating the disease, to be given to the public through scientific writers in the lay press.

The Council, which may be enlarged later, includes Dr. Frank Adair, of Memorial Hospital, appointed by the regents of the American College of Surgeons; Dr. Karl Koenblum, appointed by the president of the American Roentgen Ray Society; Dr. James B. Murphy, of the Rockefeller Institute for Medical Research; Dr. Little, of the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Me., appointed by the Council of the American Association for Cancer Research; Dr. James Ewing, of Memorial Hospital, and Dr. Burton T. Simpson, of the State Institute for the Study of Malignant Disease, at Buffalo, appointed by the directors of the American Society for the Control of Cancer.

"The Council," Dr. Little said, "is an important step forward in establishing frank and friendly relations between representatives of the lay public — that is, science writers for the newspapers and magazines — and physicians and research workers dealing at first hand with the cancer problem. The American Society took the lead in the formation of this central body as a part of the general educational program now being conducted throughout the country by its women's field army.

"Most of the members of the council are geographically situated so that conference either in person or by telephone can be had with a minimum of delay or waste of energy or expense. This is an essential element in the potential value of the council. Those who will apply to it for advice or information will seldom be in a position where they can afford to wait for the ordinary slower methods of correspondence."—*N. Y. State Jour. Med., May* 15, 1937.

State Department of Health

STANLEY H. OSBORN, M.D., Commissioner

RETRENCHMENT NECESSARY IN THE BUREAU OF LABORATORIES

Stanley H. Osborn

Prompt and definite action by the Department was necessary when additional funds were not forthcoming from the General Assembly to provide for examining the rising tide of specimens being received from physicians and other groups using the laboratories. The situation had become an emergency. The Public Health Council, after deliberation, adopted a policy for the Department that places certain retrenchments in effect beginning July. It is necessary to announce to physicians that the Bureau of Laboratories has been authorized to accept specimens only in line with the changed policy. It is regretted that the lines of activity discussed in this article must be curtailed at once and again undertaken only should the time arrive when funds appropriated to the Department are adequate for again furnishing these services.

The Reasons for Retrenchment — Most physicians will recall that in 1932 it was necessary to serve notice that specimens from physicians and health officers were reaching the Laboratories in too great volume to be handled by the staff of 38 workers then employed and to request that only specimens having a strictly public-health importance be sent for examination. Following this request specimens dropped immediately from around 16,000 to about 11,000 examinations a month. This provided some slight relief but there immediately began another gradual yet definite rise in numbers of specimens arriving for test. By December of that year the laboratory was making 16,000 examinations and since then the monthly total has never again dropped below 14,000 examinations.

In the summer of 1935 to again relieve an acute situation in the Laboratories the very large number of routine examinations previously made on persons who were handlers of milk were dropped since careful studies had shown that by other means the safety of the milk supplies of the State could be fairly adequately safeguarded. Offsetting this decrease, however, the enforcement of the provisions of the newly revised Marriage License Law and the supplying of additional services in the examination of milk and frozen-dessert samples to meet the needs of the State Dairy and Food Commissioner again caused a rise in examinations that has continued until over 23,000 examinations were made during each of the past two months, April and May, 1937.

Although the addition to the staff of three persons was authorized when the Marriage License Law went into effect just prior to January 1, 1936 and four workers have been added in the past three years for the additional milk and frozen-dessert examinations the increased work offset the additional personnel. It was necessary to use some of this additional personnel in the office and some for preparing outfits and containers so that only three persons were available for the actual examination of specimens. The result has been that the examinations per employee per year have risen to a figure for each of the past two years greatly beyond what it ever was in the past and to a point where there is now being made an average of 1,500 examinations per year per worker over and above the maimum that is considered desirable for the best scientific work. In addition, the amount of overtime work it has been necessary to demand from laboratory workers outside of the ordinary working day has risen to totals of 4,700 and 5,000 hours a year for the past two fiscal years, approximately 700 working days of overtime each year. This, the equivalent of the full time for each year of more than two workers, has been given by the laboratory staff in an effort to keep up with the demands placed upon it and in the hope of increased appropriations to meet the needs of the work.

While annual examinations have increased

225% since 1925 the total staff of the Bureau has risen only 125%. Last year there was an increase of 15% in laboratory examinations over the previous year and already this year the examinations we have been called upon to make have increased 18% over those made for the same five months period last year. Since 1932 it has not been possible to employ vacation relief workers in each division of the work as had been the case for many years prior to that time. The situation is always most acute during the summer months when several types of work are at their peak coincident with the time when there is a preference for vacations. For reasons like these it has become necessary to eliminate certain services previously available to physicians and health officers if the Laboratories are to render a service anywhere near as efficient as it has been in the past. This article is written in the hope that the physicians of the State will understand the seriousness of the situation and will cooperate fully in the matter of submission of specimens.

Discontinued Lines of Work

Beginning July 1, 1937 the Director of the Bureau of Laboratories has been instructed to carry out the following policy outlined by the Public Health Council in the acceptance of specimens.

1. **Serodiagnosis of Syphilis** — Discontinue accepting blood and spinal fluid specimens for syphilis examinations that have been collected at any hospital maintaining a laboratory or that are requested to be reported to any physician at such a hospital. There is no change in policy in respect to the receiving, examining or reporting of specimens in connection with the Marriage License. Law

2. **Pneumonia Tests** — Discontinue Neufeld pneumococcus tests except for Types I and II, for which therapeutic sera are furnished by this Department, and for Types V, VII and VIII for which types therapeutic antipneumococcic sera are on the commercial market. At the same time drop all confirmatory tests for pneumonia, including animal inoculation tests. Should sera become available commercially for the treatment of other types the typing service may then be extended.

3. **Gonorrhea Examinations** — Discontinue examining smear preparations for diagnosis of gonorrhea when submitted from physicians at State or other institutions where a laboratory is maintained. It is of course impossible to undertake other more up-to-the-minutes examinations for honorrhea such as complement-fixation and culturing of organisms now being rather insistently demanded by physicians.

4. **Animal Inoculation Tests for Tuberculosis** — Stop making animal-inoculation tests for tuberculosis which are now done on exudates and body fluids other than sputum and which are most frequently demanded by those physicians who do not have ready access to a local laboratory.

5. **Examinations for Hemolytic Streptococci** — Discontinue all examinations of nose and throat cultures for hemolytic streptococci except when specimens are taken in connection with an epidemiological investigation by the Bureau of Preventable Diseases.

6. **Cell Counts on Spinal Fluids** — Discontinue making cell counts on spinal fluids which have been made in the past to assist physicians in the interpretation of the results of the colloidal gold test.

7. **Tests for Blood in Feces** — Discontinue tests for occult blood and microscopic blood in feces samples which have been carried on only in a very limited way to accommodate physicians requesting them.

8. **Vincent's Infection Service** — Discontinue examinations for Vincent's infection which have been made in constantly increasing numbers as a service extended not only to physicians but to dentists.

9. **Examinations of Water and Dairy Products** — In addition to discontinuing the lines of work already mentioned it has been necessary to curtail services for the examination of milks and frozen desserts and for the examination of water samples made for other state departments to a point consistent with the amount of time of workers that can be allotted to those types of work. Health officers are accordingly requested to scrutinize more carefully than ever any requests for water examinations that may reach them and to certify only those supplies for examinations where the laboratory findings will very definitely have public health importance. Persons who very properly are interested in the purity of water supplies used by members of their family, whether at home or when on vaca-

tion, should be referred to laboratories approved by this Department for making sanitary examinations of water.

10. **Short-cuts in the Laboratories and Office** — In addition to limiting laboratory examinations and curtailing specific laboratory services the Director of Laboratories has been instructed to provide every short-cut possible throughout the Laboratories and the office that is consistent with reliable work. For example, it is imperative to eliminate many "check" tests that have been carried on for the sake of additional accuracy of the work. This will mean that not as much time as in the past can be given to the examination of each specimen and in general only one short, reliable test will be made.

The office routine has been pared to the bone and the simplest possible method of keeping records of specimens will be instituted. This will certainly mean some delay in answering telephone and other inquiries from physicians regarding specimens as at present specimens are indexed in more than one way to facilitate the prompt answering of inquiries, particularly toll line calls from physicians where it has been desired to furnish the information without unduly prolonging the time and increasing the expense of the call. It will be appreciated if physicians will make inquiries by letter so far as possible. There will not be office time for the checking of addresses against a correct list so each physician should be at particular pains to furnish completely and correctly his address and the name and address of the patient. Extra copies of reports furnished to health officers where the physician lives in one town and the patient in another will be eliminated because of lack of stenographic time as will copies of reports to county health officers.

The laboratory personnel is being somewhat reorganized on an emergency basis and every attempt within the above limitations will be made to make the laboratory service of the Department just as valuable to physicians as it can be made. Until such time as the funds for carrying on the work are adequate to meet the rapidly increasing demands of physicians and health officers for public-health laboratory service the work will be continued on this emergency basis.

FOLLOW THE LAW IN USING BIOLOGICS

Circular Letter No. 6 June 29, 1937

To Health Officers—

Dear Doctor:

Our appropriation for biologics is $25,000 for each of the next two years. Nearly $45,000 have been expended for biologics during the past year. We will not be in position to obtain supplementary allotments of funds as in the past for we must stay within our budget. In considering how we can give the best possible service in supplying biologics on $25,000 annually, attention has been given to the following possibilities:

1. We could meet all demands for biologics until the appropriation is exhausted and then stop furnishing biologics till more funds are available on July 1, 1938. From past experience it would seem that this plan would probably mean furnishing biologics for only about six months.

2. We could discontinue certain biologics and place restrictions on certain others. This plan would necessitate stopping either all tetanus antitoxin or all antipneumococcus serum as each of these two items costs approximately $15,000 per year.

3. Possibly the discontinuance of any biologic might be avoided by restricting the use of all to meet the most urgent needs. With the idea of making the limited appropriation for biologics go the furthest in meeting the most urgent needs of Connecticut citizens it has been decided to give this policy a trial for 2 months and see how it works out. It must work out or some biologic will have to be eliminated.

As a minor point in economy it has been decided to substitute *vials* for syringes in all packages of serums and antitoxins. All serum and antitoxin furnished by the State Department of Health will be put up in *vials* and it will be necessary for the physician who uses it to have his *own syringe and needles*. This will save twenty-five cents per package and will increase the number of packages that can be furnished.

The chief factor in making our limited appropriation for biologics go the furthest will be the cooperation of health officers. The law under which we furnish biologics reads as follows:

"Sec. 2392. Said department is authorized to procure diphtheria antitoxin, tetanus anti-

toxin, vaccine lymph or other biologic products for the free use of people of the state upon whom the purchase thereof would impose a financial hardship, and to distribute the same to town, city and borough health officers who shall furnish the same to such persons upon recommendation of attending physicians."

This law authorizes our department to distribute biologics *only* to local health officers. This places a certain responsibility on health officers in handling these biological products. These responsibilities have to do with accounting for products distributed and seeing that those that are furnished without cost for persons who would find it a "financial hardship" to pay for them. In order that a more detailed accounting system may be put into operation it is desired to have the following procedures carried out.

1. This department will furnish biologics only to local health officers on requisition made by the health officer himself or his duly authorized agent. Shipment will be made to anyone at the request of the health officer but the consignment will be charged to the health officer and must be accounted for by him.

2. Each health officer who has a stock of state biologics on hand whether his office, a hospital, a drug store or other authorized distributing agency is requested to make an inventory of all materials in stock on July 1, 1937, and report the amount on hand to the State Department of Health. All outdated biologics should be sent in to the State Department of Health *at once* for exchange. (The department is reimbursed for these.) Two requisition forms enclosed herewith may be used in making your inventory. One should be sent to this office and the duplicate is for your records.

3. Each package of biologics furnished to health officers by the State Department of Health must be accounted for in one of three ways:

a. A receipt signed by the physician at the time he obtains the package.

b. Cash at the price on the package.

c. Return of the material when outdated.

4. The Public Health Council voted at its June 1937 meeting to require a receipt for each package of biologics to be signed by the physician at the time he obtains the package in an endeavor to comply with the law. Enclosed find a sample form to be used for this purpose. A supply will be available when printed. For group immunization, the names of persons immunized can be given when the form in the package is signed and returned by the physician doing the work as it is recognized it would be difficult to get them all ahead of time. All receipts and forms signed and returned to local health officers should be sent to this department to account for the material.

5. Each health officer who carries a stock of biologics supplied by the state will be expected to make an inventory of the stock the *first of each month* and report to the State Department of Health the exact amount on hand. An accurate record of all shipments and all biologics accounted for will be kept by the Division of Supplies.

6. In the case of antipneumococcis serum, this product is to be furnished only when the physician certifies that the pneumococcus has been typed and is a type for which the serum is furnished and that the serum will be administered within four days of onset. This restriction applies only where serum is furnished free. When it is paid for, it may be furnished without these restrictions.

7. The health officer of one town may furnish a biological product for the use of a resident of Connecticut residing in another town. Where a biological product is furnished free the requirement in this respect is that the person upon whom it is used shall be a resident of Connecticut.

We are very sorry that it is necessary to place such restrictions upon the use of biological products in order to comply with the law. These are designed to see if the biologic law can be carried out with $25,000. This procedure will be modified on September first if necessary.

In the meantime we shall be very glad to receive any suggestions you may wish to make with reference to solving the problem of making one biologic dollar do the work of two.

Appreciating your cooperation in trying out the experimental procedure here proposed, I am

Sincerely yours,

MILLARD KNOWLTON,
Director

Receipt for Biologic Product

.....19...

Received from the health officer for.....

one....unit package of.....

I hereby certify that this product is to be used for.....upon whom the... purchase thereof would impose a financial hardship.

.....M.D.

For Pneumonia Only

Typing shows the pneumococcus to be Type, and the serum will be given within four days of onset.

.....M.D.

Receipt for Material for Group Immunizations

.....19..

Received from the health officer of.....

one.....c.c. package of.....

I hereby certify this product is to be used for those upon whom the cost would impose a financial hardship. I will furnish a list of those immunized immediately after I have used the material.

.....M.D.

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CRIPPLED CHILDREN PROGRAM

The state department of health has just received an appropriation for work with crippled children. This allows Connecticut to match, dollar for dollar, a Federal allotment for such work. The work will cover all parts of Connecticut.

The crippled children program which is being initiated will include the services of orthopedic surgeons. Any orthopedic surgeon interested in participating in the program is urged to write immediately to Stanley H. Osborn, M.D., State Commissioner of Health, Hartford, Connecticut, who will place all such offers of cooperation, aid, constructive criticism or other suggestions before the next meeting of the State Medical Society's Committee appointed to advise on crippled children matters.

HOSPITAL SERVICE UNDERWRITING

The provision of hospital service by insurance plans is scheduled for a severe strain by reason of the great number of strikes among the lay workers in the hospitals of the larger cities, the increase in the remuneration of the various technical employees, as well as the unquestioned rise in food prices. Very few of these plans have been in operation sufficiently long to create a reserve adequate to tide them over such embarrassing situations. The weakness of all these insurance schemes, as we see it, has been the disposition to keep the cost to the participants too close to a dangerous minimum. Few of them have been dominated by the sound principles of insurance but rather by a desire to reach a figure that would have an attractive sales future.—*Weekly Roster and Med. Digest, May* 15, 1937).

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NEW HOSPITALIZATION RATES FOR SERVICES TO AUTO ACCIDENT INDIGENTS AGREED ON

After April 1, established rates for hospital accommodations will be paid by the State Bureau of Motor Vehicles for indigents injured on state highways rather than a per diem rate established by law, according to an agreement approved by the bureau and the Ohio Hospital Association.

In a recent statement, State Auditor Joseph T. Ferguson pointed out that the present law provides that the rate for the hospitalization of indigents shall be based on the per diem cost of caring for ALL patients in the hospital involved, provided that in no case shall that rate exceed $6 per day. Mr. Ferguson stated that in most cases the indigent patient is placed in a reasonably priced ward, but the bill submitted to the state is, in accordance with the present law, figured on the average cost of caring for all patients in the hospital.

It is estimated that the new arrangement will save the state approximately $50,000 per year. A bill is pending in the Senate to bring the present law into line with the agreement.—*Ohio State Med. Jour., May*, 1937.

Connecticut Public Health Association

EDWARD J. GODFREY, M.D.
President

LESSONS FROM THE MASSACHUSETTS CANCER PROGRAM*

HERBERT L. LOMBARD, M.D.

Director, Division of Adult Hygiene
Massachusetts Department of Public Health

The Cancer Program of the Department of Public Health of Massachusetts was inaugurated in 1926 by legislative enactment. The program as originally devised, and as still functioning with modifications, contains five major activities: hospitalization, tumor diagnostic service, research, diagnostic clinics and education.

A tumor diagnostic service is maintained by the Department in conjunction with the Harvard Cancer Commission. Any physician or hospital may have suspicious tissue examined to determine the presence or absence of cancer.

The studies have covered the volume of the problem; the existing hospital facilities in the State including the availability of radium and X-ray; the medical, social, and economic aspects of the disease; as well as such etiological findings as would be obtained by statistical analysis of death records, hospital records, and home visits to cancer patients. This work is continuing and reports are made on new evidence as it is acquired.

A method for providing adequate medical care by augmenting the resources of the individual physician rather than by supplanting the physician himself has been tried in the Massachusetts Cancer Program. The cost of X-ray, radium, metabolism tests, cardiograms, and certain laboratory procedures is far in excess of the ability of the man of low income to pay. By furnishing such diagnostic procedures when needed, a form of socialized medicine is introduced which benefits both the physician and his patient and obviates more drastic change. It has been stated that every individual should not have medical care and treatment because every individual cannot afford it, but who is to determine which man's life is to be saved and which lost because of lack of money, which, in itself, is often the result of an economic system over which the individual has no control.

In the Massachusetts Cancer Program the State furnishes a hospital and twenty clinics. Every physician in the Commonwealth may bring or send his patient to one of these clinics for free consultative service. If the individual case requires such a diagnostic procedure as extensive X-ray, this will be paid for by the patient if he is able and by funds available for this service if he is not. Each case is referred to the physician who sent him to the clinic and the physician decides whether or not he desires further assistance in securing treatment for his patient. If he does, the State cancer hospital and the social staff are at his disposal.

The field of health education is at present in an elementary stage. For the last thirty years personal hygiene has been the subject of much popular discusson. On the whole, this has been based on fads and hearsay rather than on the results of scientific research. There are several experiments being conducted at the present time attempting to find a solution to this problem of disseminating knowledge. Scientific medicine is years ahead of its popular application. The problem is to present it in such a way that the individual will act upon the knowledge he receives. The backwardness in applying knowledge may be the result of an unfortunate tendency to talk generalities on the assumption that

*Presented before the Connecticut Public Health Association New Haven, Conn., May 26, 1937.

real knowledge is over the heads of the general public. If a disease and the present state of knowledge concerning it is explained in a clear way, the public responds with understanding and intelligence.

The reception of the Cooperative Cancer Control Program in Massachusetts, which started in 1934, is the best and most recent sample of this. Working on the thesis that if exact knowledge were discussed about cancer and the specific resources available were made known, the present percentage of cures would be nearly tripled, each town and city in the Commonwealth has been organized into a small Cooperative Cancer Control Committee for the dissemination of this exact knowledge. Every club, or even every small group of individuals which meets regularly, is asked to have a meeting on cancer once a year. The local physician is asked to meet with this group and discuss cancer and answer questions. This is the crux of the whole plan. At these small group meetings the public is informed of the relationship of chronic irritation to cancer, of the percentage of cures of the disease, of the fallacy of the cancer folk lore, and the danger of the cancer quack. All physicians are participating in this program by giving these talks and answering questions. By teaching in this way many practitioners are acquiring a better personal knowledge.

Another reason for the success of this plan is that it includes every group in the Commonwealth. The social, fraternal, racial, religious, military, political, and service groups are all represented. This is more than a cross section. It is the whole population of the State. The influx of patients to physician and clinic following meetings of this sort shows that the information is being not only disseminated but acted upon.

The results of this method of education are already apparent. In 1936 the interval of delay between the first recognizable symptoms of cancer and first consultation with a physician showed, in Massachusetts, a decrease of nearly 20 per cent. For nine years prior to this, the interval had remained practically stationary.

The physician is the key man in the Massachusetts Cancer Program. The whole program revolves around him and both he and his patients are helped. In this way his traditional position is unimpaired and the close relationship continues to exist between patient and physician. The majority of citizens in this country prefer to retain their own family physician. On the other hand, they need services oftentimes involving expensive procedures beyond their reach financially. Any plan, to be successful, must try to meet the needs of these countless thousands for adequate medical care. The method to be adopted will have to be planned to make the burden on the tax-payer as light as possible. The Massachusetts Cancer Program is enthusiastically supported by both physicians and the public and for this one disease is meeting the needs of the people as they have never been met before.

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LARGEST SUPPLY OF RADIUM IS HERE

With the delivery of another gram of radium, the New York City Department of Hospitals will have the largest single supply in the world. The additional gram will make the city owner of seven grams. In addition, the cancer division of the Department of Hospitals has five more grams which have been on loan for more than five years. The gram just purchased cost $24,912.50, the lowest price on record. Five years ago the same amount of radium, George T. Taylor, sales manager of the radium company, said, would have cost $70,000. Lower production costs and exploitation of better sources of supply have decreased the cost of radium.

The new gram of radium will be used at the Brooklyn Cancer Institute in Kings County Hospital. The institute already has prepared a special safe, lined inside with a four-inch thickness of lead, where the radium needles and tubes will be kept while not in use.

The city's radium purchase included fifty-eight platinum tubes filled with radium, ranging from five to fifty milligrams of the salt. A milligram is one-thousandth ot a gram, and a gram of the salt amounts to about a thimble full. In addition, the gram of radium included 100 needles with two milligrams of salt each, and twenty-five needles with three milligrams.—*N. Y. State Jour. Med., May* 15, 1937.

EXPERIENCE WITH TYPING PNEUMOCOCCI DURING THE WINTER OF 1936 - 1937 AT THE WILLIAM W. BACKUS HOSPITAL LABORATORY

Norwich, Connecticut
Maurice R. Moore, M.D.

Pneumococcal pneumonia is being treated with more success by type specific serum than the experience of a few years ago dared to promise. The Neufeld's method of typing the pneumococcus has greatly facilitated specific therapy; and accumulated experience will undoubtedly improve our present technic.

During the period September 1936 to May 1937, 57 patients with acute pulmonary infections were typed. The Neufeld's method was used; and the typing sera were those prepared by the Lederle Company. The sputum was first examined by group serum A (types I, II and VII) and B (types III, IV, V, VI and VIII) for the purpose of elimination. If no reaction appeared in A and B sera the sample of sputum was discarded; a positive finding in either group was followed with the individual serum for determination of the type of pneumococcus present.

Occasionally examinations of the first sample of sputum failed to demonstrate the pneumococcus; a second specimen was directly obtained. Part of this sputum was immediately injected in the peritoneal cavity of a white mouse and the rest was examined in the same manner as the first sample. Twelve to seventeen hours later the white mouse was killed and autopsied. The heart's blood was removed aseptically smeared and cultured in dextrose broth. A positive heart's blood culture was typed in the same manner as a sputum. If the cocci present failed to react with serum A and B, a bile solubility test was done on the broth culture to demonstrate that we were dealing with a pneumococcus. If the organisms were soluble in bile we then typed, occasionally, for the higher members of the group, purely for academic interests.

Positive blood cultures on patients were always typed; and only once was the pneumococcus present in the blood shown to be different from the type which had already been demonstrated in the sputum.

The following tables give a summary of our findings:

	Patients typed	Negative	Positive	Patients with two types
1.	57	24	33	2

2. Types of Pneumococci Found

1	2	3	4	5	6	7	8	14
9	3	5	0	9	0	4	4	1

3. Blood Cultures

Positive	Negative
5	19

Discussion and conclusion

It is not always possible to find the pneumococcus in the first sample of sputum submitted when examined by direct method. Our experience has demonstrated that by use of a mouse the rare pneumococcus can be found. The added work and costs are small and the compensation is most gratifying in discovering the type in the occasional case that would otherwise be missed. The mouse injection does not in anyway delay the findings; the laboratory is at liberty to examine as many samples of sputum as is desired while one waits for the animal. Failure is guarded against and the occasional multiple type is more certain to be discovered.

Not infrequently, positive blood cultures from these patients are discovered in twelve to twenty-four hours and these are always an indication to increase the dose of immune serum without waiting to observe clinically that the case is not responding "properly" on ordinary doses. These cultures should be taken on admission and observed closely by the laboratory technicians.

The laboratory technician is a vital link in "type specific" therapy. They require proper training and patience if failures are to be avoided.

Table 2 is of particular interest. In this relatively small group there were as many Type V as Type I and three times as many V as II. These numbers clearly demonstrate that treating without typing should be a thing of the past.

ENCEPHALOGRAPHY WITH A THREE WAY STOPCOCK*

Peter J. Serafin, M.D., M.Sc.

The apparatus as presented here is especially suitable for performing encephalography with one needle system. It consists of a twenty cc. luer lok syringe connected to a three way stopcock. Such equipment is found in any hospital; it is easily assembled, and it is practically unbreakable.

In actual practice the patient is in a sitting position in a special chair built for that purpose having a supporter arm in front. The usual third or fourth lumbar interspace is anaesthetized with one per cent novocaine and a spinal needle is inserted into the spinal canal; and, if the cerebrospinal fluid is obtained, a piece of sterile rubber tubing is attached to a nipple and to a spinal manometer and the reading is taken at frequent intervals without detaching the syringe from the needle.

With the handle turned in a horizontal position, cerebrospinal fluid can be withdrawn to any desired mark, five, ten, or fifteen cc. depending on the age of the patient and on the corresponding adjustment of a chain which is attached for that purpose to the barrel and the piston of a syringe. By turning the handle down, this fluid can be expelled and an equal amount of air aspirated. By turning the handle again to a horizontal position, a measured amount of air is injected into the cerebrospinal canal. This procedure is repeated until the cerebrospinal canal is drained off completely. With this method each cc. of cerebrospinal fluid withdrawn or air injected is measured exactly, as there is no loss of either one during the entire procedure.

This method is simple, accurate and semi-automatic. It does not require any special syringes or any unnecessary attachments and can be performed by any one.



Syringe with a three way stopcock attached; handle at A, take cerebrospinal pressure. Handle at B, aspirate the fluid, and handle at C, expell it, and on reverse stroke aspirate the air; handle at A again, expell the air into the cerebrospinal canal. The length of chain adjustment determines the amount of fluid aspirated and expelled.

*From the Department of Surgery, Grace Hospital, New Haven, Conn.

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THE TRAILER MENACE

The use of automobile trailers is becoming so extensive that they are presenting a serious health problem, according to Dr. Verne K. Harvey, secretary of the state board of health of Indiana.

Dr. Harvey states that he will request members of the state board of health to consider the issuance of definite rules and regulations to cover health angles of trailers operating in their state. These proposed regulations would apply also to trailer camps.

The two most serious problems relative to use of trailers as temporary homes are those of sewage and garbage disposal. A regulation requiring a sewage connection of some approved type at trailer camps, with necessary equipment on the trailers, is one of those under consideration. The problem is complicated by the fact that some trailer dwellers stopping in camps use toilet facilities of the camps while others do not. The state health department already has authority to regulate camps, and they now are required to have approved water supplies and sanitary units in order to receive a license.

Just how extensive the regulations will be has not been determined according to Dr. Harvey. The transitory nature of these trailer nomads makes the problem a difficult one.—*Jour. Indiana State Med. Asso., May* 1, 1937.

The President's Message

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It may be said this past year marked the beginning of a new era in the history of the Connecticut Medical Society. The new administrative set-up, the departure from the time honored method of publishing the Proceedings and the publication of our own Journal have met with general approval. More frequent publications of the Journal in the near future will give added service and pleasure to the members of the Society and others interested in medical progress.

The Connecticut State Medical Society at the last annual meeting voiced its approval of prepaid hospital service contracts only when such contracts exclude medical service of physicians other than that customarily rendered by a resident house staff. Hospital group associations are becoming more popular. It is hoped during this next year uniform plans for these associations may be worked out.

The Committee on Medical Expert Testimony has rendered its report. Attention is called to the report in this issue of the Journal and physicians are asked to study it as this subject will be discussed at the fall county meetings.

There are many eligible physicians throughout the state not affiliated with the Society. The county associations are urged to invite these physicians to become members.

The members of the Society are urged to bear in mind the Clinical Congress to be held in New Haven in September and arrange their time so as to attend as many of the sessions as possible. The next annual session of the State Society, for which plans are already being made, will be held at Hotel Griswold, Groton. Members are urged to keep this meeting in mind and work to make it the best in the history of the Society.

While the Society is "consolidating its advances" it must and will keep attuned to the rapidly changing social and economic questions in so far as they affect the welfare of the sick.

Finally, your president bespeaks the continuation of the harmony, cooperation and good fellowship so refreshing in our Society in these days when distrust, unrest and strife are so rampant throughout the land.



CHARLES HENRY TURKINGTON

President of The Connecticut State Medical Society

Dr. Charles Henry Turkington, born 1880; Ph.B., Yale, 1903; M.D., Johns Hopkins University, 1907; interne, Hartford Hospital, 1908-1909; Captain M. C., World War; Fellow, American College of Physicians; Chief of Medical Service, Charlotte Hungerford Hospital, Torrington; Councilor, 1922-1935; Physician, Litchfield, Connecticut.

Proceedings: House of Delegates

In Session at Bridgeport, Connecticut, May 19, and 20, 1937

FIRST SESSION
May 19, 1937

The first session of the House of Delegates of the Connecticut State Medical Society convened at ten-thirty o'clock in the Rose Room of the Hotel Stratfield, Bridgeport, Connecticut, Dr. Daniel C. Patterson, President of the Society, presiding.

REPORT OF THE PRESIDENT
Daniel C. Patterson, Bridgeport

Gentlemen of the House of Delegates:

It has been a great honor to have served as your President, and I wish to express to you my thanks for electing me to office.

The work of the Society has been so ably conducted by the Council and Secretaries that my term of office has been both easy and pleasant.

In spite of the innovations in the re-arrangement of the secretarial work, and the introduction of the Journal, everything has gone smoothly and I believe that the business that you will have to transact at this meeting will be dispatched easier than in the past.

The House of Delegates is the Senate of the Society, and it is for you to decide the issues that arise. Delegates should endeavor to get from their County societies, an expression of opinion on the questions that will come up at the annual meeting. It is one of the duties of the councillors to acquaint the county societies with those questions.

It is too bad that your duties keep you from attending part of the Scientific sessions. It seems to me a plan might be worked out to overcome this.

During the past year I have visited all the County societies,— most of them twice, and these visits have been a great pleasure. I would like to be sort of a roving delegate and go back for more.

Your officers have tried to the best of their ability to work for the good of all the members, and no jot of self-interest has entered into their proposals.

The reports of the Secretaries, Chairman of the Council, Chairmen of the committees, and Delegates will all be presented to you, so I will not take up your time with a recital of their activities.

I want to thank all the officers for their fine work, and on behalf of the Society thank you for your attendance and service.

Respectfully submitted,

DANIEL C. PATTERSON

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REPORT OF THE ADMINISTRATIVE SECRETARY
Creighton Barker
New Haven

Mr. President and Gentlemen of The House of Delegates:

It has been customary in the past for the Secretary of this Society to report during the Annual Meeting a large number of statistics of membership in the Society. That information has been largely eliminated from the Secretary's Report this year, and will be published at a later date in the JOURNAL. Very briefly it may be said that at the close of the Annual Meeting in 1936 there were 1580 members of the Society. During the year we have lost by death 35, by resignation 15, by transfer 6, by dropping 23, a total loss of 79. During that same period there have been 106 new members admitted to the various County Associations which makes a net gain of 27, a total membership for the Society of 1607 as of this date. No members have been expelled. Death has taken a number of prominent and especially valuable members of our Society; The Presidents of two County Associations: Dr. Bishop of New Haven, and Dr. Bean of Tolland died while in office, both of them had been prominent in medical affairs for many years. It was the Secretary's privilege to work with Dr. Henry Stoll of Hartford on the Program Committee for the Clinical Congress. He was ever

an alert and co-operative member of that Committee, and his passing is deeply lamented; and the Secretary feels a deep sense of personal loss in the death of Frank Hallock of Middlesex, President of the Society in 1910, and for years a valued contributor to the Society's deliberations and progress.

Any attempt to adequately review the far reaching changes that have been made in the administration of the Secretary's Office during the past year would occupy far more time than should be allotted to this report. However, some of the new activities demand enumeration here in order that they may be discussed if such discussion is desired.

1. In order that there might be closer integration of the various County Associations there have been two conferences of the County Secretaries at the State Office at which various problems of mutual importance were discussed. This appears to be a very important innovation, for as a closer knowledge of the pattern of our organization is obtained it becomes increasingly obvious that there are ways in which the County Associations may be mutually helpful. Another Conference of the County Secretaries will be held tomorrow.

2. The Secretary's Office has at all times been available for meetings of committees, and many of them have taken advantage of these facilities. In the course of time I am hopeful that most of the committee activity may take place in the State Office in order that there may be a centralized system for the keeping of records and co-ordinating the various phases of the Society's work.

3. Last summer, just as we were getting under way in the State Office, we undertook to provide biographical information for the Directory published by the Medical Society of the State of New York which also includes a directory of physicians in New Jersey and Connecticut. Previously Connecticut had been covered only by an inadequate alphabetical list. We were able to amplify the 1937 Directory by the publication of a large amount of accurate and important information concerning the physicians in our State; the organization of hospitals; Public Health Departments, etc. This received a ready response and is, perhaps, the most accurate and timely directories of physicians in this State that has ever been published. The council has authorized its continuance.

4. With the idea in mind that it would be possible to have additional funds to meet the added expense of new activities of the Society without raising the dues at this time, the Council approved the proposal that a Commercial Exhibit be held in connection with the Annual Meeting. This has been organized through the Secretary's Office with the welcome co-operation of Mr. Thomas R. Gardiner, the Business Manager of the Medical Society of the State of New York, and for his assistance I am deeply grateful. A substantial sum will go to the Treasury of the State Society as proceeds of this Exhibit, and it is probable that such an Exhibit should continue to be an important part of the revenue raising activities of the Society.

The Secretary has, in company with the President of the Society, and the Chairman of the Council, attended meetings of all of the County Associations in the State during the past year, and most of them twice. On every hand there seems to be a freshened interest in the activities of the State Society, and a keen awareness of the necessity for serious and intelligent consideration of the many problems of medical practice that have arisen with the rapidly changing social pattern.

An important new activity of the Society is, of course, the establishment of the JOURNAL which will be thoroughly reviewed for you by its Editor, Dr. Weld, but I do wish at this time to express my appreciation of Dr. Weld's hard work and compliment him upon the fine achievement which he has made. As time goes on I am sure that the JOURNAL will become such an important adjunct to our State Society that there will be expressions of amazement that it was not established before.

The Society continues to be deeply in debt to Dr. Charles Comfort for his services as Legislative Secretary. The General Assembly this year was an especially trying one with a great deal of social legislation proposed which required the most careful scrutiny, and I bespeak for my colleague, Dr. Comfort, an expression of the Society's appreciation.

The Secretary and the Editor of the JOURNAL were privileged to attend the Annual Conference of State Secretaries and Editors at the headquarters of the American Medical Associ-

ation in Chicago in November of last year. It had been some time since Connecticut was represented at that Conference, and Dr. Weld and I were warmly welcomed. We had an opportunity to meet the Secretaries of most of the other State Societies in the country, and to confer with them on many subjects of mutual interest. It was a valuable experience for us both.

The Committee on Honorary Members and Degrees has submitted its report to the Secretary, and the recommendation contained in that report will be made at the appropriate time.

The Chairman of the Committee on Hospitals wishes to report that it has become a joint committee with a similar group from the Connecticut State Hospital Association and this co-operative effort will undoubtedly make easier the solution of problems that confront the hospitals and our profession. This Committee has made an inquiry into the subject of minimum requirements for the operation of hospitals but as yet has reached no conclusions therein.

The Committee on Narcotic Drug Addiction has inquired into several subjects properly within its function including a reintroduction into the General Assembly of a bill to restrict the sale of barbiturates and other hypnotic drugs except upon the prescription of a physician. It also interested itself in certain changes in Connecticut's Narcotic Act to bring it into conformity with the so-called Uniform Narcotic Act.

Dr. D. Chester Brown, the Chairman of the Committee on National Legislation wishes me to report that that Committee has not met during the past year and recommends that it be discharged and that a committee consisting of the delegates to the American Medical Association and the Legislative Secretary of the Society be substituted therefore. This recommendation has been accepted by the Council, and the Committee on National Legislation for the ensuing year so constituted.

The Committee on Co-operation with Yale University School of Medicine has met twice during the year, and has directed its attention to various matters of intimate interest to the profession of the State, and the Yale School of Medicine. Since this Committee is not empowered with any especial authority but is purely a conference committee no definite actions have been taken.

As I look back upon the activities of the year just passed, the frequent Council meetings, the many conferences that have been held with the Chairman of the Council and the President of the Society, the thoughtful attempts to sensibly answer new questions of policy as they have arisen, I pause and wonder at the smoothness and ease with which so much has been accomplished. There are two very good reasons for this: First, the sound judgment and tireless effort of the Chairman of the Council, which has been available for my guidance during this time; and for the understanding helpfulness and hard work that has been given by my Secretary, Miss Capello; she is invaluable to this Society.

The arrangements for this meeting have been in the hands of a very active committee from the Fairfield County Medical Association under the Chairmanship of Dr. Crawford Griswold, and I wish to thank each of the members of that Committee for their fruitful efforts.

The Secretary's Office has operated this year within its prescribed budget, and has asked for no increase for next year except in the item of rent, janitor service, and electricity, which increase was unavoidable.

Respectfully submitted,
CREIGHTON BARKER,
Administrative Secretary

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STATISTICAL REPORT OF MEMBERSHIP

The following deaths have been officially reported since the last Annual Meeting:

Fairfield County:

Harris Fenton Brownlee, Danbury.
DeRuyter Howland, Stratford.
George Eugene Ober, Bridgeport.
Samuel Pierson, Stamford.
Herbert deGrove Sherman, Greenwich.
Frank Deming Solley, Bethel.

Hartford County:

Charles DeLancey Alton, Hartford.
Michael Angelo Bailey, Hartford.
James Joseph Boucher, Hartford.
Robert Joseph Boyle, Bristol.
Kent Oakley Brown, Newington.
William Dennison Morgan, Hartford.
Thomas Francis O'Brien, Hartford.
Lewis Albert Sexton, Hartford.
Thomas George Sloan, Manchester.

Henry Farnum Stoll, Hartford.
Arthur Jacob Wolff, Hartford.

Litchfield County:
Wade Wright, Roxbury.

Middlesex County:
John Elmore Bailey, Middletown.
Frank Kirkwood Hallock, Cromwell.

New Haven County:
Frederick Courtney Bishop, New Haven.
Alfred Clark Carpenter, Milford.
Leonard Eric deChantal, Wallingford.
Charles Purdy Lindsley, New Haven.
John Francis Luby, New Haven.
James John McLinden, Waterbury.
Carl Eugene Munger, Waterbury.
Charles Dickinson Phelps, West Haven.
Walter A. Reilly, Naugatuck.
Henry Herbert Smith, New Haven.
Arthur Romanzo Weed, New Haven.

New London County:
Edmund Peaslee Douglass, Gales Ferry.
Ross Elliot Black, New London.
Morton Earl Fox, Montville.

Tolland County:
Wright Butler Bean, Stafford Springs.

The following are no longer members of the Society for the reasons stated:

Resigned

Fairfield County:
Thomas Long Ellis, Bridgeport.
Frederick James Mann, Darien.
Edward Francis Urba, Middle Grove, N. Y., (Stamford).

Hartford County:
Charles Herbert Borden, Brooklyn, N. Y., (Hartford).
Wilton Elias Dickerman, Hamden.
Helen Robertson Howe-Gage, Suffield.
John Cornelius McNerney, Southington.

Middlesex County:
Emma Jane Thompson, East Haddam.

New Haven County:
Frederica Winestine Alexander, Waterbury.
Martha May Eliot, Washington, D. C., (New Haven).
Herbert Cadogan Francis, New Haven.
James Aloysius Harten, North Haven.
Arthur Francis McDonald, Waterbury.

Tolland County:
Paul Hartley Jordan, Worcester, Mass., (Mansfield Depot).
Paul Hammersley Salmond, Stamford.

Dropped

Fairfield County:
Bernard John Burns, Bridgeport.
James Donald Corridon, Norwalk.
Ralph Edward Costanzo, Greenwich.
Morris Jacob Greenstein, Bridgeport.
Alfred Frank Hewitt, Stamford.
Maxwell Gordon Keeler, Stamford.
Louis Keller, Stamford.
Bernard Charles Marantz, Stamford.
Edward Francis McGovern, Bridgeport.
Ralph Domenick Padula, Norwalk.

Three members were dropped and later reinstated:
Abraham Apsel, Bridgeport.
Michael J. Rowe, Bridgeport.
Frank M. Tukey, Bridgeport.

New London County:
Eugene Curtis Peck, Oakland, Maryland, (New London).

Dropped, non-payment of Dues

Fairfield County:
Myron J. Brooks, New Canaan.
Thomas F. Davis, Fairfield.

Hartford County:
Myron M. Campbell, Hartford.
Thomas H. Gallivan, Hartford.
William T. Owens, West Hartford.

Middlesex County:
Felix P. Chillingworth, Boston, Mass.
John T. Spignesi, Wallingford.

New Haven County:
Charles H. Carroll, New Haven.
Thomas Francis O'Donnell, Waterbury.

Transferred to other State Societies:

Litchfield County:
James Milton Parker Dooley, New York, (Kent).

New Haven County:
Hugh Francis Folsom, Southboro, Mass., (New Haven).
Morris Louis Rakieten, Brooklyn, N. Y., (New Haven).

The following have been elected to membership by the several component County Medical Associations, and have been enrolled as members of the State Society:

Fairfield County:
Francis J. Awdziewicz, Stamford.
Eugene C. Beck, South Norwalk.
Joseph L. Carwin, Stamford

Edwin R. Connors, Bridgeport.
James J. Costanzo, Stamford.
Edward H. Diamond, Springdale.
G. Robert Eckert, Danbury.
Aaron Eimas, Bridgeport.
Barnet Fine, Stamford.
Nathan H. Friedman, Stratford.
Edward B. Hopper, Stamford.
Frederick S. Hosking, Darien.
Les Hymovich, Stamford.
John A. P. Millett, New Canaan.
William J. Murray, Bridgeport.
Louis Newton, Bridgeport.
John F. Nolan, Bridgeport.
Thomas J. Pascal, Bridgeport.
Samuel A. Rose, Stamford.
Richard O'Brien Shea, Bridgeport.
Estella M. Strayer, Stratford.
Joseph E. Strobel, Greenwich.
William P. Teuscher, Westport.
Margaret C. Vickers, Greenwich.
Charles F. Yeager, Bridgeport.

Hartford County:
Frederick Stanford Bird, Bristol.
Alfred Louis Burgdorf, Hartford.
Martha Louise Clifford, Hartford.
Lawrence Perley Cogswell, Hartford.
Philip M. Cornwell, East Hartford.
James Morrow Cunningham, Hartford.
Bernard Stephen Dignam, Thompsonville.
Leo Thomas Duffy, Hartford.
Francis X. Fagan, Hartford.
John Norman Gallivan, East Hartford.
Sebastian Giuliano, Hartford.
Carl Jay Hart, New Britain.
Donald R. Hazen, Hartford.
James J. Irving, Hartford.
Robert Raymond Keeney, Jr., Manchester.
Moses David Lischner, Hartford.
Rudolph Maslak, Warehouse Point.
Martin Patrick McCue, East Hartford.
Rocco Anthony Montano, Hartford.
Joseph Gabriel Pekala, Bristol.
Paul Stetson Phelps, Hartford.
Sidney Sayre Quarrier, Hartford.
Frederick Peckham Rogers, Hartford.
Francis James Ryan, Hartford.
John Joseph Sayers, Hartford.
David Seymour Slossberg, Hartford.
William Robb Stevenson, Bristol.
Arthur Charles Unsworth, Hartford.
Walter Weissenborn, Hartford.
Edmond Robert Zaglio, Manchester.

Litchfield County:
Joseph G. Bienkowski, Torrington.
Francis Joseph Cornelio, Winsted.
Francis Gallo, Winsted.
Emerson Stanley Hill, Torrington.
Daniel Dudley Lovelace, New Milford.
Frank Reichenbach, Watertown.

Middlesex County:
Henry Octave Colomb, Middletown.
Norman Pember Rindge, Westbrook.

New Haven County:
Louis Edward Barron, New Haven.
Alexander Lewis Bassin, New Haven.
Bernard Alfred Berman, Waterbury.
Mildred H. Clark, New Haven.
Muriel Case Downer, Wallingford.
Angelo Louis Gentile, New Haven.
Daniel Foster Harvey, New Haven.
Orvan W. Hess, New Haven.
Edith Banfield Jackson, New Haven.
Eugen Kahn, New Haven.
Michael Walter Palmieri, New Haven.
Clarence Loveridge Robbins, New Haven.
George Alan Rubin, New Haven.
Marvin Allen Stevens, New Haven.
Nehemiah Alvarado Towne, Naugatuck.
Frederick A. Wies, New Haven.

New London County:
Joseph Charles Barry, Jewett City.
Jacob H. Lubchansky, Uncasville.
Frederic A. Lund, Groton.
Albert Grant Rapp, New London.
Pauline Laure Riendeau, Norwich.
Verl John Throckmorton, Mystic.

Tolland County:
Donald M. Beckwith, Rockville.
Omar W. Gilmour, Mansfield Depot.
Gould S. Higgins, South Coventry.
Morris S. Whitman, Ellington.

Windham County:
Reuben Rothblatt, Willimantic.

The following have been reinstated in membership:

Fairfield County:
Abraham Apsel, Bridgeport.
Michael J. Rowe, Bridgeport.
Frank M. Tukey, Bridgeport.

New Haven County:
Anthony F. Alu, Ansonia.
Edmund F. Fitzsimmons, New Haven.

John W. Fruin, Waterbury.
J. Francis MacNish, New Haven.
William H. O'Neil, Ansonia.
Thomas E. Parker, Waterbury.
Joseph E. Slavin, Waterbury.

The following have been elected as new members through transfer from other State Societies:

Fairfield County:

Otto Francis Geck, Newtown, (Kingston, N. Y.).

Frederic Sargent Huntington, Noroton Heights, (Scranton, Pa.).

The Society has gained 90 newly-elected members, with 6 transfers and ten reinstatements, making a total gain of 106. The losses have been: by death, 35; resigned, 15; removed and dropped, 23; transfer, 6; total losses, 79. Net gain for the year, 27. The total membership is 1,607. The following table details these changes:

County Association	Total Membership May 20, 1936	New Members	Reinstatements	(Added, County Transfer)	Added, State Transfer	Died	Resigned	(Lost, County Transfer)	Lost, State Transfer	Dropped	Dropped non-payment of dues	Gain	Loss	Total Membership
Fairfield County	302	25	3	...	2	6	3	...	..	13	2	...	..	
Hartford County	473	30	..	(1)	..	11	4	...	..	..	3	...	..	
Litchfield County	65	6	..	...	..	1	..	...	1	..	..	...	..	
Middlesex County	72	2	..	...	..	2	1	(2)	..	..	2	...	..	
New Haven County	493	16	7	...	..	11	5	(1)	2	..	2	...	..	
New London County	115	6	..	(2)	1	3	..	...	..	1	..	...	..	
Tolland County	23	4	..	...	..	1	2	...	..	..	..	...	..	
Windham County	37	1	..	...	..	..	..	...	..	..	..	...	..	
Totals	1,580	90	10	(3)	3	35	15	(3)	3	14	9	106	79	1,607

REPORT OF THE TREASURER

James Raglan Miller, M.D.

During the past year all dues from county societies have been collected and all dues which were in arrears have also been collected so that at the present time no dues are owed the state treasury from any county association.

The budget on which the society has been running was set up a year ago for the year beginning July 1; previous treasury reports have been for the calendar year. It would seem that the society should have each year a statement of its financial condition at the end of the month prior to the annual meeting. It would likewise seem preferable to cast a budget for the ensuing year beginning May 1 instead of July 1.

The council has authorized the treasurer to close his books for the annual report on April 30. The following report therefore includes the first five months of 1936, during which time the former treasurer was in office, and the succeeding months ending April 30, 1937, sixteen months in all.

EXHIBIT A*

January 1, 1936, Balance Creighton Barker, M.D.	$ 8344.63
January 1, 1936 to April 3, 1937, Received	14484.89
Total receipts	$22829.52
Total expenditures	15698.67
Balance May 1, 1937, Treasurer	$7130.85
Balance May 1, 1937, Journal Account, per exhibit D	574.80
Balance May 1, 1937, Administrative Secretary, per exhibit E	576.85
Total May 1, 1937	$ 8282.50

*Detailed report will be furnished by the Treasurer on request.

EXHIBIT B

RUSSELL FUND

Balance January 1, 1936	$1,553.95	
Received:		
Proceeds, sale of bond	1,041.38	
Bond interest	380.00	
Bank interest	62.10	
	$3,037.43	$3,037.43

Disbursed:		
Purchase of bond	$1,005.27	
Purchase of office furniture	863.29	
	$1,868.56	$1,868.56
Balance May 1, 1937		$1,168.87

This fund consists of five $1,000.00 first refunding mortgage bonds of the Connecticut Railway and Lighting Company stamped. The current market is about 106, unchanged from a year ago.

Two $1,000.00 fifty year Debenture Bonds of the Consolidated Railway. These bonds have been in default since the July coupon date 1935 though 50% of the coupon interest is being gradually paid. The current market is 34 bid or four points higher than one year ago.

One $1,000.00 bond of the Boston & Albany Railroad, 4¼% 1978. The current market is 98 bid, or five points less than one year ago.

EXHIBIT C

O. C. SMITH FUND

Balance January 1, 1936	$ 444.26	
Received:		
Proceeds, bond called	1,072.50	
Proceeds, bond called	1,049.58	
Bond interest	45.00	
Bank interest	28.27	
	$2,639.61	$2,639.61
Disbursed:		
Purchase of bond	$1,072.00	
Dues of indigent members	62.00	
	$1,134.00	$1,134.00
Balance May 1, 1937		$1,505.61

In explanation of changes in the fund since the last treasurer's report and of the items represented in this report: $1,072.50 resulted from the sale of a bond of the Hartford City Gas Light Company which was called. The purchase of the bond at $1,072.00 was of one 1st and Refunding 4½% gold bond of the Connecticut Light & Power Company, series C. This bond was called on January 1, 1937 at $105., yielding, less commissions, $1,049.58. The entire fund therefore consists of Savings bank deposits, account No. 55673, in the Mechanics Savings Bank of Hartford. Consultation with conservative investment counsel advised no immediate purchase of higher interest yielding securities.

EXHIBIT D

Report of the Journal account to May 1, 1937

Receipts	
From State Society Treasurer	$1700.00
From Advertising	1118.19
From Subscriptions	83.50
From Profits on Reprints	12.85
Total Receipts	$2914.54
Total Expenditures	2339.74
Balance on hand May 1, 1937	$ 574.80

EXPENDITURES

To Printer	$2148.28
To Postage	104.85
To Supplies (Directory, filing cabinet, etc.)	67.75
To Manuscript expenses	16.00
To Phones and telegrams	2.86
	$2339.74

EXHIBIT E*

Administrative Secretary — Office account

Salary	$ 500.00
Stenographer	1438.75
Rent	685.00
Office Expense	835.48
Sundries	215.19
Commercial Exhibit	20.36
Auto Emblems	56.00
Total Expenses	$3750.78
Balance on hand for May and June 1937	576.85

*Detailed report will be furnished by the Treasurer on request.

Respectfully submitted,

JAMES RAGLAN MILLER,
Treasurer

We have examined the books of the treasurer on which the above report was based and find it to be a correct statement thereof.

HENRY L. SWAIN,
H. GILDERSLEEVE JARVIS,
Auditors

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REPORT OF THE BUDGET COMMITTEE

The following table presents the budget under which the society has operated during the past year together with the budget which is herewith proposed for the year 1937-8. These budgets are calculated for one year beginning July 1. In due course of time a readjustment to a fiscal year beginning May 1 may be properly considered.

	1938	1937
Administrative Secretary	$ 600.00	$ 600.00
Legislative Secretary	250.00	250.00
Scientific Secretary, July 1, 1937-January 1, 1938	750.00	300.00
Stenographer	1,500.00	1,500.00
Bulletin — Journal (Subscriptions)		1,400.00
July 1, 1937-January 1, 1938	700.00	
January 1, 1938-July 1, 1938	1,000.00	
Office Rent — (including Telephone electricity, Janitor service)	960.00	750.00
Office Expenses	400.00	400.00
Office Sundry — Travel	300.00	300.00
Expense — Legislative Committee	600.00	600.00
Expense — Annual Meeting	600.00	250.00
Expense — Delegates to A. M. A.	400.00	200.00
Travel — Chairman of the Council	250.00	
	$8,310.00	$6,550.00

The salary of the scientific secretary and editor of the Journal has been budgeted at $1500.00 beginning July 1, 1937. This item as indicated presents the salary for the remaining six months of 1937. Thereafter the salary of the scientific secretary and editor of the Journal is included in the item "Journal subscriptions." This latter item represents approximately $1.50 per member, which as been set as the subscription price of the Journal, included in the annual dues and set up in this fashion so that all financial aspects of the Journal, including the salary of the editor, will be more clearly set forth.

The item for office rent is increased largely by including telephone, electricity and janitor service formerly carried on the budget under "Office expense". The item of office expense has been thereby relatively increased, remaining at the same figure as last year.

Expenses of delegates to the A. M. A. is increased in anticipation of a meeting in the far West. An item of $250.00 was included to compensate the chairman of the council for travel expenses necessitated by his arduous duties.

The increase in the item of expenses for the annual meeting is made on the basis of previous experience and considering the fact that this year and, it is to be hoped, in future years the local societies will not be asked to contribute to the expenses of the annual meeting. Heretofore this expense has borne heavily every three or four years on three county and city societies and any increase which occurs in the state budget is offset by a corresponding decrease in local contributions.

The only outstanding bill payable which is not current business is for office expense of the previous secretary, estimated to be in the neighborhood of $750.00.

As nearly as can be estimated at this time, with two months remaining and the uncertainities of the annual meeting expenses to be considered, it would seem that the budget for 1936-1937 may be exceeded by an amount between $500.00 and $1000.00.

In review therefore we find the society's funds on May 1, 1937, exclusive of the Russell and O. C. Smith funds, amounted to $8282.50. Setting aside $750.00, bills payable, this leaves $7532.50 available for business after May 1. With approximately 1600 members, a tax of $5.00 would raise an income from dues amounting to $8000.00. The budget expenses are estimated as $8310.00. It would seem that for the coming year there is no necessity of increasing the dues.

The general funds of the Society seem ample to carry it until further experience is gained with the cost of, or profits from, running the Journal and the Commercial Exhibit at the annual meeting.

If the activities of the society are enlarged during 1938 it may become necessary to provide for increased expenses by a special levy if it is deemed desirable to maintain a safe margin in the general funds.

Respectfully submitted
for the Budget Committee,

JAMES RAGLAN MILLER,
Treasurer

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REPORT OF THE CHAIRMAN OF THE COUNCIL

James Douglas Gold, M.D., Bridgeport

Mr. President and Members of The House of Delegates:

The first meeting of the Council of the year was held in Hartford at the Hunt Memorial Building. Doctor James Douglas Gold was elected Chairman of the Council for the ensuing year.

It was voted that the Treasurer of the Society was authorized to use the income of the Russell Fund for current expenses during the year should an emergency arise.

It was voted that the lease for the Office of the

State Society be signed on behalf of the Society by the Treasurer.

The Treasurer was authorized to pay from the income of the O. C. Smith Fund the dues for the fiscal year 1937 of indigent members as recommended by the Councilors of the Component Medical Associations.

The Committee on Cooperation with Yale University School of Medicine was elected as follows:

Chairman: The Chairman of the Council, Dr. Gold

The President of the Committee on Medical Examination and Medical Education.

The Chairman of the Committee on Public Policy and Legislation.

Members at large: Dr. R. A. McDonnell, New Haven, Dr. Daniel Sullivan, New London.

On September 23, 1936 the Council met in New Haven. A full Council was present.

The Proposed Draft of Standing Orders and Policies for Public Health Nurses, submitted by the Connecticut State Department of Health, was considered, and its adoption was recommended.

The Chairman of the Council appointed the following Committee:

Chairman: Dr. Creighton Barker, Dr. H. Gildersleeve Jarvis, Dr. James R. Miller, to study the program of The House of Delegates with a view to eliminate unnecessary procedure.

It was moved and carried that a Commercial Exhibit be held in connection with the Annual Meeting of The Connecticut State Medical Society. The President of the Society was instructed to appoint a committee of three from the Society to organize and administer such an exhibit.

It was voted that the Secretary on Scientific Work should be the presiding secretary during the Scientific Sessions of The Connecticut State Medical Society at its Annual Meetings.

The Administrative Secretary was instructed to communicate with the national officers of the Woman's Auxiliary to the American Medical Association to the effect that in the opinion of the Council the Resolution of The House of Delegates passed in May, 1928, endorsing the Woman's Auxiliary to the American Medical Association was to be construed as an endorsement of the project in general, but was not sufficient to authorize organization within the State of Connecticut, and that further action by The House of Delegates would be required before such organization could properly be undertaken.

It was voted that arrangements of the Scientific Programs in relation to having more than one out-of-state speaker at the Annual Meeting be left to the discretion of the Committee on Scientific Work.

A meeting of the Council was held on December 12, 1936 at the Office of the Society in New Haven. All members of the Council were present.

The amendments to the By-Laws were approved for adoption by The House of Delegates at its Annual Meeting in 1937. Such amendments are printed in full on the program up for your consideration.

At the direction of The House of Delegates at its Annual Meeting in 1936, the Council discussed measures to provide for the suspension of the By-Laws in exceptional circumstances. After due consideration the Council went on record as disapproving any temporary suspension of the By-Laws.

It was voted that the following recommendations be submitted to The House of Delegates:

1. The Council recommends to The House of Delegates the rescinding of the vote previously passed by The House of Delegates that the Eye, Ear, Nose and Throat Section be required to hold its meeting on the first day of the Annual Meeting of the Society.

2. a. The Council recommends to The House of Delegates that that part of the Resolutions having to do with the publication and the distribution of a Quarterly Bulletin, passed by The House of Delegates in a special meeting held in New Haven on January 16, 1936, be and hereby is rescinded.

b. The Council recommends to The House of Delegates that, commencing with January, 1938 the Society shall publish a monthly periodical to be known as the JOURNAL of The Connecticut State Medical Society which shall be delivered monthly to each member of the State Society without charge. This JOURNAL shall publish the Transactions and Scientific Proceedings of The Connecticut State Medical Society, and such other material as may be deemed desirable by its Board of Editors.

The Secretary on Scientific Work shall be the editor-in-chief of this JOURNAL. On or before June 10, 1937 the Council shall appoint four

members of the State Society to serve as an editorial board of the JOURNAL; one appointee of this Board to serve until the Annual Meeting in May, 1938; one to serve until the Annual meeting in May, 1939; one to serve until the Annual Meeting in May, 1940; and one to serve until the Annual Meeting in May, 1941. At the Annual Meeting of the Society in 1938, and annually thereafter, the Council shall nominate to The House of Delegates a member of the Society to serve as a member of the Editorial Board of the JOURNAL for a period of four years.

The entire editorial and advertising policy of the JOURNAL of The Connecticut State Medical Society shall be vested in the above-mentioned Editorial Board of which the Secretary on Scientific Work, serving as editor-in-chief of the JOURNAL, shall sit as Chairman. This Board shall elect from among its number, but not the Secretary on Scientific Work, one member who shall be designated as the Custodian of the JOURNAL Funds. He shall receive and disburse all monies properly belonging to the JOURNAL, and his account shall be audited each year just preceding the Annual Meeting of the Society by the Society's Auditing Committee. This Custodian shall receive an honorarium of $100.00 per year, to be paid from the Funds of the JOURNAL. Commencing with July 1, 1937 the salary of the Secretary on Scientific Work and Editor of the JOURNAL, shall be $1500.00 per annum, paid from the Funds of the JOURNAL, in twelve equal monthly installments of $125.00 each.

On or before the tenth day of January, 1938, and annually thereafter, the Treasurer of The Connecticut State Medical Society shall pay from the Treasury to the Custodian of the JOURNAL Funds, a sum computed upon the basis of $1.25 per capita for the membership of The Connecticut State Medical Society; such payments shall be considered to be the subscription price of the JOURNAL for members of the State Society.

* * * * *

The Secretary was directed to communicate with the President of the United States, in the name of this Society, recommending the appropriation of adequate funds for the Army Medical Library.

It was voted that the syphilis study, to be carried out in cooperation with the state Department of Health, as proposed by the Surgeon General of the United States Public Health Service, be directed by the Public Health Committee of the Society.

It was voted that the State Society, through its Public Health Committee, should co-operate with the State Health Department and the Fracture Committee of the American College of Surgeons in the preparation publication and distribution of a manual of first aid for laymen, as proposed by the Public Health Committee in a recent communication.

It was voted that the Council instruct the Tumor Committee of the State Society to have an exhibit in the Scientific Exhibit at the American Medical Association Annual Meeting in Atlantic City, June, 1937, and that funds, not to exceed $100.00, be appropriated from the funds of the Society to defray the expenses thereof.

The Council meeting of January 27, 1937 was held at the Office of the State Society in New Haven. Seven members of the Council were present. The purpose of the meeting was to discuss and approve the form of contract that is about to be sold by the Hospital Service Fund, Inc., of New Haven. It is a plan for the prepayment for hospital service at the rate of $9.00 per year. The fund is to commence operation in New Haven with the view that when it has been launched here it will be extended to the rest of the State as was discussed at the meeting of The Connecticut State Hospital Association in Hartford. Before proceeding to sell this contract the approval of the State Medical Society is requested.

It was voted that the Council recommend to The House of Delegates of The Connecticut State Medical Society the approval of the contract as submitted by the Hospital Service Fund, Inc., of New Haven, and that a Special Meeting of The House of Delegates be called in New Haven at four o'clock on February 10, 1937 for the purpose of acting upon this recommendation of the Council.

The next meeting of the Council was held on March 29 at the State Office in New Haven. Ten members were present.

The resolution in regard to prepaid hospital service plans, which was tabled at the Special Meeting of The House of Delegates on February

10, 1937, was taken from the table, and the Council then directed its attention to the task of defining medical service. The motion was made and carried that the Council shall recommend to The House of Delegates that in approving any contracts for prepaid hospital service the approval of the State Society be given only to contracts which exclude medical services of physicians other than those customarily rendered by a resident house staff. This motion was sent to each County Secretary for discussion with the view that the delegates from such Associations be familiarized with the problem prior to the Annual Meeting of The House of Delegates in May.

The following recommendation was made:

That permission be given to the Commercial Casualty Insurance Company to continue with the sale of this insurance throughout the rest of the state as they have done in Fairfield and New Haven Counties.

The Council recommended the discharge of the present Committee on Telephone Listings of the State Society. Dr. Miller of Hartford informed the Council that an experimentation in this regard is being made through the County Association's newly formed Bureau of Medical Information; and it was decided that if this experiment proves successful the State Society would direct its attention to it.

It was voted that the Medical Directory of New York, New Jersey, and Connecticut be continued in 1938 as it was done last year, through the Office of the State Medical Society, with the possible expense of $75.00.

Pursuant to a request made by Dr. Ralph M. Tovell of Hartford that the Council formally recognize the Section on Anesthesia, it was voted that this request be granted.

The following procedure concerning the collection of dues by the Treasurer of the State Society from the County Secretaries was approved:

For each member carried on the rolls of a County Association, the Treasurer of the State Society shall be paid on or before December 31 of each year the amount of the Annual State Society dues less 5% which is to be retained by the County Secretary as reimbursement for his services. The Secretary of each of the County Associations is exempt from the payment of dues to the State Society. If a County Association votes to exempt a member from the payment of dues for any reason that member's dues must be paid to the State Treasurer from the County Associaton's funds.

The last meeting of the Council was held on Monday, May 3, 1937 as follows:

STATED MEETING OF THE COUNCIL
4:00 P.M., Monday, May 3, 1937
258 Church Street, New Haven, Conn.
Doctor James Douglas Gold, presiding.

Present:

Fairfield: James Douglas Gold, Bridgeport, *Chairman*
Hartford: H. Gildersleeve Jarvis, Hartford
Litchfield: Harry B. Hanchett, Torrington
Middlesex: Roy L. Leak, Middletown
New Haven: Henry L. Swain, New Haven
New London: Charles G. Barnum, Groton
Windham: Robert C. Paine, Thompson
The President: Daniel C. Patterson, Bridgeport
The Treasurer: James R. Miller, Hartford
The Administrative Secretary: Creighton Barker, New Haven.

Absent:

Tolland County. Charles T. LaMoure, Mansfield

The following officers were nominated for the year 1937-1938:

For President:
Charles H. Turkington, Litchfield

For President-Elect (providing The House of Delegates adopts the Amendment to Section 1, Chapter V of the By-Laws):
Hugh B. Campbell, Norwich

For 1st Vice-President:
Herbert Thoms, New Haven

For 2nd Vice-President:
Roy C. Ferguson, Rockville

For Administrative Secretary:
Creighton Barker, New Haven

Legislative Secretary:
William L. Higgins, South Coventry

Secretary on Scientific Work and Editor of the JOURNAL:
Stanley B. Weld, Hartford

For Treasurer:
James R. Miller, Hartford

For the Committee on Scientific Work:
The Secretary on Scientific Work, *Chairman*
Harold W. Wellington, New London
The Administrative Secretary of the Society

For the Committee on Public Policy and Legislation:

Fairfield County: Samuel F. Mullins, Danbury (re-nomination)

Hartford County: Arthur B. Landry, Hartford (re-nomination)

Litchfield County: Harry B. Hanchett, Torrington (re-nomination)

Middlesex County: Louis Loffredo, Middletown (re-nomination)

New Haven County: David R. Lyman, Wallingford (re-nomination)

New London County: Robert R. Agnew, Norwich (re-nomination)

Tolland County: William L. Higgins, South Coventry (vice-R. C. Ferguson)

Windham County: Joseph A. Girouard, Willimantic (re-nomination)

The President of the Society

The Administrative Secretary of the Society

The Committee on National Legislation

For the Committee on Medical Examination and Medical Education:

One member for a term of five years, to begin January 1, 1938.

Charles J. Bartlett, New Haven (re-nomination)

So that the Committee will consist of:

1933 Thomas P. Murdock, Meriden (Secretary)

1934 Daniel C. Patterson, Bridgeport

1935 George M. Smith, Waterbury

1936 John C. Rowley, Hartford

1937 Charles J. Bartlett, New Haven (President)

For the Committee on Honorary Members and Degrees:

1935 Walter R. Steiner, Hartford (re-nomination) *Chairman*

1936 Thomas P. Murdock, Meriden (re-nomination)

1937 Daniel C. Patterson, Bridgeport

For the Committee on National Legislation:

On the recommendation of the present Committee on National Legislation the personnel of that Committee is discharged with the thanks of the Society, and the delegates to the American Medical Association and the Legislative Secretary of the Society are nominated to be members of the Committee on National Legislation which will be constituted as follows:

George Blumer, New Haven, Walter R. Steiner, Hartford, William L. Higgins, South Coventry, Delegates to A. M. A.

For the Committee on Hospitals: Two members for a term of three years:

H. Bertram Lambert, Bridgeport (re-nomination)

Frederick N. Sperry, New Haven (re-nomination)

and to be Chairman: Harry B. Hanchett, Torrington

so that the Committee will consist of:

1936 H. B. Hanchett, Torrington, *Chairman*

1935 Edward J. Ottenheimer, Willimantic

1935 Harold W. Wellington, New London

1936 Wilmar M. Allen, Hartford

1937 H. Bertram Lambert, Bridgeport

1937 Frederick N. Sperry, New Haven

For the Committee on Public Health:

Joseph I. Linde, New Haven, *Chairman* (re-nomination)

Louis M. Allyn, Mystic (re-nomination)

Howard W. Brayton, Hartford (re-nomination)

Robert S. Buel, New Britain (vice E. J. Caulfield, Hartford)

A. Nowell Croadick, New Haven (re-nomination)

John S. Dye, Waterbury (re-nomination)

Joseph H. Howard, Bridgeport (re-nomination)

Louis O. LaBella, Middletown (re-nomination)

James R. Miller, Hartford (re-nomination)

Oliver L. Stringfield, Stamford (re-nomination)

W. Bradford Walker, Cornwall (re-nomination)

Edward J. Ottenheimer, Willimantic

For the Committee on the Clinical Congress: for the term October 1, 1937 to September 30, 1938:

To continue the present Committee, so that the Committee shall consist of:

Stanhope Bayne-Jones, New Haven, *Chairman*

Herbert Thoms, New Haven, Secretary

Charles E. Sanford, New Haven, *Treasurer*

The President of the Society

The Chairman of the Council

The Administrative Secretary of the Society

The Secretary on Scientific Work

The eight Secretaries of the component County Medical Associations

Such other members as the Committee shall appoint

For the Committee on Tumor Study:

Charles L. Larkin, Waterbury, *Chairman* (re-nomination)
Ashley W. Oughterson, New Haven (vice S. C. Harvey, New Haven)
Ralph E. Kendall, Hartford (re-nomination)
Philip G. McLellan, Hartford (re-nomination)
H. LeBaron Peters, Bridgeport (re-nomination)
Carl H. Wies, New London (vice D. Sullivan, New London)
Milton C. Winternitz, New Haven (re-nomination)
W. Bradford Walker, Cornwall
The State Commissioner of Health

For the Committee on Narcotic Drug Addiction:

To continue the present Committee so that the Committee shall consist of:
Arthur B. Dayton, New Haven
John H. Foster, Waterbury
Alfred Labonsky, New London
Nathaniel Selleck, Danbury

For the State Committee on Workmen's Compensation and the five District Committees:

To continue the present Committees, except for the substitution of Dr. F. W. Comstock for Dr. C. Barker, in the Third District Committee.

so that the Committee shall consists of:

The Council
The Chairmen of the 5 District Committees:

so that the First District Committee shall consist of:

George W. Dunn, New Britain, *Chairman*
Benedict B. Landry, Hartford
D. C. Y. Moore, South Manchester
Benedict N. Whipple, Bristol
Thacher W. Worthen, Hartford

so that the Second District Committee shall consist of:

Joseph A. Girouard, Willimantic, *Chairman*
John P. Hanley, Stafford Springs
F. Erwin Tracey, Durham
Lewis Sears, Norwich
Harold W. Wellington, New London

so that the Third District Committee shall consist of:

Francis H. Reilly, New Haven, *Chairman*
Fred W. Comstock, New Haven (vice C. Barker, New Haven)
Edward W. Foster, Meriden
James D. McGaughey, Wallingford
Paul W. Vestal, New Haven

so that the Fourth District Committee shall consist of:

D. Chester Brown, Danbury, *Chairman*
Daniel C. Patterson, Bridgeport
J. Howard Staub, Stamford
Edward J. Tracey, Norwalk
J. Leonard Vickers, Greenwich

so that the Fifth District Committee shall consist of:

Michael J. Lawlor, Waterbury, *Chairman*
Harry B. Hanchett, Torrington
Edward H. Kirschbaum, Waterbury
Maurice J. Reidy, Winsted
Samuel B. Rentsch, Derby

For Delegate to the American Medical Association for the term of two years, July 1, 1937 to June, 1939.

George Blumer, New Haven, (re-nomination)

For Alternate Delegate to the American Medical Association; for the term of two years, July 1, 1937 to June, 1939.

Robert L. Rowley, Hartford (re-nomination)

For Delegates to State Societies: for the term of one year, July 1, 1937 to June 30, 1938.

To Maine:
Ralph A. McDonnell, New Haven
Alfred C. Henderson, Stamford
To Massachusetts:
Philip G. McLellan, Hartford
Joseph A. LaPalmo, Putnam
To New Hampshire:
Thacher W. Worthen, Hartford
Paul R. Felt, Middletown
To Rhode Island:
James D. McGaughey, Wallingford
George A. Elliott, Middletown
To Vermont:
Roy L. Leak, Middletown
George Blumer, New Haven

For Delegates to Special Societies: for the term of one year, July 1, 1937 to June 30, 1938:

To the Connecticut State Dental Association:

Frederick N. Sperry, New Haven

Delegate to be named by the Administrative Secretary with the advice of the Chairman of the Council.

To the Connecticut Hospital Association:

Chairman, Committee on Hospitals
Such other members of Committee on Hospi-

tals as the Chairman shall select

To the Connecticut State Pharmaceutical Association:

Arthur B. Dayton, New Haven

Depending upon the approval of The House of Delegates of the recommendation of the Council that the JOURNAL be placed on a monthly basis with an Editorial Board, the following nominations to that Board are made:

For a term of four years: Herbert Thoms, New Haven.

For a term of three years: Frank Jones, Hartford.

For a term of two years: Oliver L. Stringfield, Stamford.

For a term of one year: Charles S. Mirabile, Hartford.

The Council elected the following:

The Committee on Cooperation with Yale University School of Medicine:

To continue the present Committee:

so that the Committee shall consist of:

The Chairman of the Council, *Chairman*

The President of the Committee on Medical Examination and Medical Education.

The Chairman of the Committee on Public Policy and Legislation

Ralph A. McDonnell, New Haven

Daniel Sullivan, New London

Creighton Barker, New Haven

The Committee on Permanent Funds, and Auditors.

To continue the present Committee:

so that the Committee shall consists of:

The Treasurer of the Society

H. Gildersleeve Jarvis, Hartford, Henry L. Swain, New Haven, Auditors

The Committee on Medical Expert Testimony:

To contnue the present Committee:

so that the Committee shall consist of:

Otto G. Wiedman, Hartford, *Chairman*

Paul W. Vostal, New Haven

Harold W. Wellington, New London

III. Recommendation for Dues for the Year 1938.

Dues for the year commencing January 1, 1938 were continued at $5.00.

IV. Recommendation as to Date and Place of Annual Meeting in 1938.

An invitation having been received from the New London County Medical Association to have the 1938 Annual Convention of the State Society in New London County at the Hotel Griswold, Groton, the Council voted to recommend to The House of Delegates that the Annual Meeting in 1938 be held at Groton, New London County, Connecticut, on June 2 and 3, providing that those dates do not conflict with the Annual Convention of the American Medical Association.

V. New Business:

It was voted that at the Annual Meeting of the Society in 1937 the Treasurer of the Society be instructed to render a report of the finances of the Society for the period beginning January 1, 1936 and ending May 1, 1937, and that hereafter the fiscal year of the Society would extend from May 1 to April 30.

It was voted to recommend to the House of Delegates that the Council appoint a Committee of 5 to review, revise, and codify the By-Laws of the Society, and that this Committee be instructed to submit a preliminary report to the House of Delegates at its annual session in 1938.

On motion of Doctor Jarvis it was voted that there should be a stated meeting of the Council on the fourth Wednesday of each month at five o'clock p.m., at 258 Church Street, New Haven. In the event that there is no business to come before the Council at the time of one of those stated meetings the Secretary of the Society is to notify the members of the Council that no meeting will be held.

It was voted to recommend to The House of Delegates that the Medical Society of the State of New York be invited to send two delegates to the Annual Meetings of The Connecticut State Medical Society in the future.

The following are excerpts from the Reports of the Councilors throughout the State:

Fairfield County:

Dr. James Douglas Gold, Councilor

By revision of our Constitution and By-Laws we have a Board of Trustees which carries on the business of the Association between our Annual and Semi-Annual meetings. An interesting paper by Dr. A. J. Mendillo of New Haven at the October meeting, and one by Dr. William P. Healy of New York, at the April meeting, were both very instructive.

Hartford County.

Dr. H. Gildersleeve Jarvis, Councilor

Reports of problems which have come up before the Hartford County Medical Association have been brought before the Board of Directors. In conjunction with the Hartford Medical Association and the County Directors a Medical Information Bureau has been set up for the purpose of handling all publicity relationships. One-third of the cost of the Medical Information Bureau is paid by the County Association.

Litchfield County.

Dr. Harry B. Hanchett, Councilor

Dr. Hanchett reports that the County is solvent. Refresher courses in Obstetrics are being held this spring.

Middlesex County.

Dr. Roy L. Leak, Councilor

Dr. Leak reported a very successful meeting in October. Dr. Samuel Marshall of the Department of Surgery of the Lahey Clinic gave an instructive talk on the "Diagnosis and Treatment of Biliary Tract Diseases". It was reported that The Connecticut State Hospital, due to its limited funds, remains badly overcrowded.

New Haven County.

Dr. Henry L. Swain, Councilor

Dr. Swain reports the loss of their President, Dr. Frederick C. Bishop, who was not able to attend any of the County meetings. The Vice-President, Dr. John S. Dye, acceptably filled the office as President. Doctor Swain speaks with a great deal of pride regarding one of the members — the Legislative Secretary, Dr. Charles W. Comfort, Jr. — expressing his appreciation of the work he has done in bringing order out of chaos; as fine a piece of work as possible has been done for us by Doctor Comfort.

New London County.

Dr. Charles G. Barnum, Councilor

The New London County Medical Association met at the State Hospital, Norwich, in October. Dr. Chester M. Jones of the Harvard Medical School spoke on "The Treatment of the Sick Liver." At the Annual Meeting in April, held at the Seaside Sanatorium, Dr. Milton C. Winternitz of the Yale University Department of Medicine gave a lantern slide presentation of some new work on the "Pathology of Vascular Disease."

Tolland County.

Dr. Charles T. LaMoure, Councilor

Their meetings have been held at the Old Homestead Inn at Somers — a charming place for such meetings including both refreshments for the mind and for the body. Dr. LaMoure reports the loss by death of their President, Dr. Wright B. Bean, who died in January, 1937. The speaker at the Spring meeting was Dr. Hugh B. Campbell whose subject was "The Modern Diagnosis and Treatment of Tuberculosis."

Windham County.

Dr. Robert C. Paine, Thompson

Doctor Paine reports a prosperous year. He also reports one of the manifestations of the New Deal's further entrance into medicine came up in the form of Refresher Courses in Obstetrics and Pediatrics, and as the excellency of the lectures became apparent the feeling was that the idea was good both for us and for our patients.

In closing I wish to call to your attention the very satisfactory and ably conducted tri-secretary office of this The Connecticut State Medical Society. Dr. Barker, The Executive Secretary, has given generously of his time and counsel, which has proved of inestimable value to the Society and to me as Chairman of the Council.

Our Scientific Secretary, Dr. Weld, has not only prepared the excellent program of this Annual Meeting, but as Editor of our JOURNAL he has given evidence of untiring attention to his part of this experiment. Our Legislative Secretary, Dr. Comfort, has again shown his ability in bringing before our State Legislative bodies in clear and concise form the views and reactions of the men of the medical profession in regard to the bills presented which are of interest and importance to us.

I heartily and earnestly recommend to you that we continue to give our loyal support to this sensible experiment. I wish to express my deep appreciation to the officers and members of this Society who have helped to make this a banner year.

Respectfully submitted,

JAMES DOUGLAS GOLD,
Chairman

REPORT OF SECRETARY ON SCIENTIFIC WORK

Stanley B. Weld, Hartford

Mr. President and Gentlemen of The House of Delegates:

The Secretary on Scientific Work has been occupied during this the first year of this office with two duties, the arrangement of the program for the annual meeting and the editorship of the newly formed Journal. Little need be said in explanation of the first of these two duties. The program should speak for itself. Your attention is called to the change in policy carried out this year, whereby all the principal speakers have been secured from outside the membership of the Society. This was done for two reasons: first, because of the difficulty experienced in recent years in securing speakers within the Society; second, in the hope that a change such as has been made this year may stimulate more interest among our own members in future programs. The other members of the committee have contributed generously of their time and advice.

The task of establishing our new Journal with its multiplicity of details is past history. One year ago the House of Delegates voted to publish such a Journal in place of the annual Proceedings. Four issues have appeared. As we begin another year we hope to profit by our experiences and give to the members an increasingly improved product.

With this in view an editorial board has been requested to aid in establishing matters of policy and to assist in the management. Acting on the advice of the Cooperative Medical Advertising Bureau of the American Medical Association we are recommending a change in publication on January 1, 1938 from a quarterly to a monthly. This change should make the Journal of more value to the members and should aid the component County Associations in the publication of material for circulation among their members.

It is a source of no little satisfaction that the Journal has been accorded such a whole-hearted reception. It is hoped that it may be utilized more extensively by the officers, by the various committee chairmen, by the County Association Secretaries, and by the individual members of our State Society. We covet for our own publication a leading place among the other State Society Journals.

Respectfully submitted,

STANLEY B. WELD

REPORT OF THE COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION

Thomas P. Murdock, Meriden
Secretary

Mr. President and Gentlemen of The House of Delegates:

During the last fiscal year the Medical Examining Board admitted one hundred ninety applicants to its examinations; one hundred and nine wrote the examinations and eighty-one were admitted on the basis of credentials. Forty-two applicants or twenty-two per cent failed the examinations. Seven osteopaths wrote the examinations in medicine and surgery and they all failed to meet the requirements. During the year the Board met with the Secretary of the Legislative Committee of the Society on three occasions at which times questions on the policies of the Board were discussed and new legislation to be presented to the legislature was suggested.

Functioning as a complaint board two meetings were held during the year at which three physicians appeared on major complaints.

Respectfully submitted,

T. P. MURDOCK,
Secretary

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REPORT OF THE COMMITTEE ON THE CLINICAL CONGRESS FOR THE YEAR 1936

Stanhope Bayne-Jones, New Haven
Chairman

The Twelfth Clinical Congress of the Connecticut State Medical Society was held at New Haven on September 22, 23 and 24, 1936. At the three sessions during the mornings papers were presented by authorities upon ten topics of wide interest and at the end of the last morning session there was a stimulating and informative panel discussion on the subject of "Endocrinology of Today." Bedside clinics and numerous symposia occupied the afternoon sessions. Dinners and special meetings were held by various sections in the evenings. The Congress was generally regarded as a highly successful educational meeting and was thoroughly enjoyed by all who took part in it.

The attendance was the largest, with one exception, in the history of the Congress. The corrected figures show that there were 633 regis-

trants. The following comparative statistics of registration in the past six years are encouraging evidence of the popularity which the Congress has attained:

Year	Registrants
1931	296
1932	239
1933	215
1934	635
1935	627
1936	633

Of the total number of registrants, 564 (89.1%) were physicians residing in Connecticut and of these, 467 were members of the Connecticut State Medical Society. The attendance of 69 physicians from places outside the state is a tribute to the high regard in which the Congress is held by our neighbors, both near and far. The locational analysis of the registration is presented in the following table:

Statistics on Registration at the Twelfth Clinical Congress, 1936

	Number	Per cent
Total Registration	633	
Connecticut	564	89.1
New Haven County	284	44.9
Hartford County	118	18.6
Fairfield County	79	12.5
New London County	26	4.1
Middlesex County	25	3.9
Litchfield County	19	3.0
Windham County	10	1.6
Tolland County	3	.5
Outside of State	69	10.9
Massachusetts	28	4.45
New York	21	3.35
Rhode Island	10	1.6
New Jersey	4	.6
Florida	2	.3
Maine	1	.15
New Hampshire	1	.15
Pennsylvania	1	.15
Vermont	1	.15
Members of the State Society	467	73.6

Percentage Distribution of Registrants among Membership of Societies

Name of Society	Percentage Registered
Connecticut State Medical Society	29.9
New Haven County	45.6
Middlesex County	32.8
Windham County	27.7
Litchfield County	24.2
Fairfield County	22.8
Hartford County	22.4
New London County	17.6
Tolland County	13.0

The report of the Treasurer shows that the receipts of the Twelfth Clinical Congress amounted to $1,566.95, while the expenditures were $1,633.00. The deficit of $66.05 is regarded as small in view of unpredictable costs and a large item for the expenses of speakers. By further economics the Congress should be able to meet current expenses from income, and the Chairman believes it would be desirable to add to the reserve fund. On January 1, 1937, the reserve fund in bank deposits amounted to $3,414.52.

The Journal of the Connecticut State Medical Society was generous in giving space in editorials and articles to the announcements of the Congress and to reports of the papers delivered at the meetings. The Committee is grateful to the editor and managers of the Journal for this service which was of effective assistance to the Congress.

The work of preparation for and the conduct of a Clinical Congress is arduous, requiring time, thought and careful attention to details. It was done for the Twelfth Congress as for previous Congresses by several groups of public-spirited men and women in our profession. Those in immediate charge of arrangements benefited during the year from cooperation with numerous physicians throughout the state. The Chairman wishes to express his appreciation of the intelligent and devoted services of the members of the Committee.

Plans for the Thirteenth Clinical Congress, to be held in New Haven on September 21, 22 and 23, 1937, have been under way since last fall. It is believed that the program for the next Congress will be as interesting as any of the past.

The Chairman of the Twelfth Clinical Congress feels that he has occupied a position which his contributions to the Congress hardly warrant. He is deeply interested in the Congress, believing that it is a highly beneficial educational activity of the State Society. He would do all he could to serve it, whatever his official position in relation to the Committee might be. He appre-

ciates the honor which has been done him by his appointment and offers the officers of the Society his thanks for their constant support.

Respectfully submitted,

STANHOPE BAYNE-JONES,
Chairman, Clinical Congress

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REPORT OF THE STATE TUMOR COMMITTEE

Charles L. Larkin, Waterbury
Chairman

Your committee reports that its work, which is the prevention of cancer and the adequate treatment of those suffering from cancer in Connecticut, has been carried on through the same agencies as those set up by my predecessor, Dr. Thomas H. Russell. The Tumor Committee, itself, met four times during the year and these meetings were well attended by all its members except Dr. Samuel Harvey and Dr. H. LeBaron Peters who unfortunately have been ill. The committee still believes that by far the best means of preventing and discovering cancer in the early stages is the annual complete physical examination of all people above the age of thirty-five by a competent physician.

The Publicity Committee under the able chairmanship of Dr. E. J. Ottenheimer has laid stress on the necessity and importance of such yearly examinations. This has been done principally through the distribution of some 127,000 pamphlets containing the basic facts about cancer which every layman should know. These pamphlets were distributed to the people through the libraries, insurance companies, schools and industrial organizations. Three articles on cancer were published in the Weekly Health Bulletin of the State Department of Health and six in the Monthly Bulletin. The program has also been stressed by publishing ten newspaper articles during the year and four radio broadcasts. All propaganda, before release has to be OK'd by a Reading Committee which consists of the Chairman and Secretary of the Tumor Committee and the Chairman of the Publicity Committee.

The real progress that has been made this year in the work of the Tumor Committee has been due in great part to the establishment of the Bureau of Cancer Research in the State Department of Health in Hartford. Mr. Herbert F. Hirsche and Dr. Matthew H. Griswold have worked tirelessly and have cooperated in every way with all the activities of this committee and but for this cooperation the committee's work would be at a standstill.

The Scientific Committee also has worked excellently under the leadership of Dr. E. C. Weise. This committee's principal work was to educate the physicians in regard to their duties in the prevention and care of cancer. This has been done for the most part through the activities of the nineteen various Tumor Clinics situated strategically about the state. Dr. Weise and his committee were instrumental in having four meetings of the Association of Connecticut Hospital Tumor Clinics at New Haven, Hartford, Bridgeport and Waterbury. The subjects discussed at these meetings were:

New Haven — Cancer of the Larynx.

Hartford — Cancer of the Breast.

Bridgeport — Cancer of the Rectum and Sigmoid.

Waterbury — Cancer of the Cervix and Fundus Uteri.

It is felt by your committee that through these meetings of the Association of Connecticut Hospital Tumor Clinics standard treatments for some of the common cancerous lesions will be developed.

The Tumor Committee believes that there is a need for a great deal more financial assistance from the State of Connecticut if the cancer problem is to be properly handled in this state. Before asking for such assistance from the state it believes that there should be available more accurate data as to the real cancer situation here in Connecticut and when such data is obtained a practical plan should be worked up showing how the money could be spent and why it should be spent for properly handling the cancer problem in Connecticut. To accomplish this purpose your committee advises the appointment of a Committee of outstanding citizens of Connecticut to make a careful and comprehensive survey of the cancer deaths in Connecticut, to estimate the percentage of total deaths from cancer with the cases hospitalized, the number of bed days, the number in constant use by cancer cases, the number of beds needed for terminal cases and like data which will be needed before a practical

plan can be devised. There should also be a complete survey of the facilities for treatment of cancer in the state. Your committee would like to propose that a tentative committee of the following men and women be appointed:

1. Dr. Stanley Osborn — State Dept. Public Health.
2. Dr. Charles Comfort — State Medical Society.
3. Dr. Dinsmore — Insurance Companies (Travelers).
4. Dr. A. W. Oughterson — New Haven, Yale Med. School.
5. Dr. B. M. Parmelee — Bridgeport, Roentgenologist.
6. Dr. E. J. Ottenheimer — Willimantic, small hospitals.
7. Dr. Wilmar Allen — Hartford, Hospitals.
8. Dr. P. G. McLellan — Hartford, Secretary Tumor Committee.
9. Mrs. Doris McBee — Willington, State Representative.
10. Dr. C. E. A. Winslow — New Haven, Public Health Dept.
11. Dr. Charles L. Larkin — Waterbury, Chairman Tumor Committee.

With power granted to this committee to increase their number by appointment of new members either to the main committee or to subcommittees.

The Tumor Committee believes that a ruling of the State Medical Association should be made to prevent irresponsible members of the profession or cancer quacks from using the radio to broadcast cancer propaganda which is not acceptable by an authorized group of medical men. To further this end the Tumor Committee recommends that all proposed cancer propaganda be submitted to the Reading Committee of the State Tumor Committee for approval.

Respectfully submitted,
CHARLES L. LARKIN,
Chairman Tumor Committee
of the Connecticut State Medical Society

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REPORT OF THE COMMITTEE ON WORKMEN'S COMPENSATION

No district reports have been received and nothing has been brought to the attention of this Committee.

Respectfully submitted,
JAMES DOUGLAS GOLD, *Chairman*

REPORT OF THE COMMITTEE ON PUBLIC HEALTH

Joseph I. Linde, M.D., New Haven
Chairman

Mr. President and Gentlemen of The House of Delegates:

Your Committee on Public Health has held five meetings, two in New Haven at the Office of the Society, one in Waterbury at the Castle Memorial Building, and two in Hartford at the State Office Building. The subject considered were:

1. Programs of the State Department of Health under the Social Security Act.
 a. Pediatrics.
 b. Obstetrics.
 c. Proposed Program for Crippled Children.
2. Emergency Accident Program. The handling of accident cases to prevent additional further injury from the process of transportation.
3. Venereal Disease Control Program as requested by Surgeon General Thomas Parran, Jr. of the U. S. Public Health Service.
4. Consideration of Proposed Legislation in re Public Health.

1. a. Pediatrics.

Under the Child Health and Maternal Health Program the State Department of Health has extended and conducted child health conferences throughout the State. Doctors for these conferences have generally been members of the State Medical Society, and have received a renumeration from Social Security Funds as was suggested by the Public Health Committee a year ago. Refresher Courses in pediatrics for practitioners have been outlined and are now in progress in the northeastern section of the State. An outline of the course was published in the November issue of the JOURNAL.

b. Obstetrics.

Two series of refresher courses on maternal health have been conducted in the northeastern part of the State, which courses were also outlined in the November issue of the JOURNAL. At the spring meeting of the Litchfield County Medical Association desire was expressed to have a series held in Litchfield County. This series is now being conducted at the Charlotte Hungerford Hospital in Torrington.

c. Proposed Program for Crippled Children

Two meetings of the Committee were held to discuss the proposed crippled children's program under the Social Security Act. At the first meeting a definition of a crippled child was decided on which follows:

"For the purpose of administering this fund (Social Security), a crippled child shall be considered an individual of sound mind under twenty-one years of age with congenital or acquired defects which interfere with his locomotive activites or prevent him (or her) from obtaining an education or being employed in a renumerative capacity; except that no funds shall be spent for the treatment of hypertrophied or diseased tonsils, hernias, eye or ear defects."

The proposed program was discussed, but owing to the failure of appropriation nothing further was done until the meeting of April 28, at which further discussion took place. At this meeting it was voted that the Committee was of the opinion that the crippled children's program be administered by the State Department of Health. The details of the tentative program were also discussed at this meeting. It was suggested that a plan similar to plans in operation in other states be modified and adopted, and briefly consists in case finding and in the establishment of clinics for crippled children in various parts of the State, which clinics are to be in charge of a local orthopedist on part time (with renumeration from State and Federal Funds). It was the sense of the meeting that present facilities be used as far as possible, and that the program be headed by a full time physician.

2. Emergency Accident Program. The handling of accident cases to prevent additional further injury from the process of transportation.

Under the leadership of Doctor Dye a special committee on accidents has been studying the problem and has reported progress. It is the aim of the Committee to assist in the general program of accident handling as suggested by the Committee on Fracture of the American College of Surgeons and the Emergency Committee of the Red Cross. It is also planned to publish in conjunction with the State Department of Health literature on the handling of accidents. Dr. Dye, Chairman of the Sub-Committee on Handling Accidents, has submitted a complete report on these cases. The recommendations follow:

1. All hospitals in the state should be requested to give a course of instructions on Fractures to their ambulance drivers and internes.

2. Police and Firemen should be given a course. There should be a special committee to handle this phase. The teaching should be done by the Police Surgeon.

3. An effort should be made to make it a compulsory course in the fourth year at High and Preparatory Schools of the State. They should be given credit for it as they would in any other subject. It should be a stiff but interesting course.

4. Encourage all factories to give courses and lectures to their men. The local Medical Society should always be willing and ready to have one of its members give talks on the Care and Transportation of the Sick and Injured.

5. There should be a committee whose duty it is to write short, crisp, illustrated articles to appear more or less regularly in the newspaper to educate the public.

6. Moving picture reels would also do a great deal of good.

7. An authentic pamphlet on first aid should be published.

A tentative outline on the Handling of Fractures is presented.

3. Venereal Disease Control Program, as requested by Surgeon General Thomas Parran, Jr., of the U. S. Public Health Service.

One of the meetings of the Committee was devoted to the discussion of a venereal disease control program. Doctor Henry P. Talbot, Director, Bureau of Venereal Diseases, State Department of Health, was present and suggested certain topics for a State program. These have been published in the May issue of the JOURNAL. A request was made to each County Association to appoint a committee to consider the venereal disease control program, and to make necessary arrangements for bringing this subject to the attention of their members. Most of the counties have appointed such committees, and with the cooperation of the State Department of Health are now conducting an active campaign in venereal disease control in their respective counties.

4. The Committee met with the Legislative Secretary, Dr. Osborn and Professor Hiscock, Public Health Consultant for the reorganization Commission, to consider proposed bills concern-

ing Public Health; and that part of the reorganization plan dealing with medical subjects was turned over to a sub-committee which met with the Committee on Public Policy and Legislation of the Society.

The Committee has no special recommendations at the present time to bring before this meeting. Your chairman is indebted to the members of the Committee, and also to the other members of the Society who have been called in in an advisory capacity, especially the pediatricians and obstetricians who have assisted in arranging the refresher course, and to the orthopedists who have been of such great assistance in discussing the proposed crippled children's program; also to your Administrative Secretary and his Secretary for valuable assistance.

Respectfully submitted,

JOSEPH I. LINDE,
Chairman

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REPORT OF THE COMMITTEE ON MEDICAL EXPERT TESTIMONY

Otto G. Wiedman, Hartford
Chairman

Mr. President and Gentlemen of The House of Delegates:

At the annual meeting of the Connecticut State Medical Society in 1935, the following resolution was presented:

"Whereas, members of the medical profession are habitually called upon to give expert testimony in courts of law in behalf of clients from whom they derive remuneration, and

"Whereas, their testimony might easily be biased because of personal or particular interests, thereby giving rise to evil practices, and

"Whereas, biased and prejudiced testimony results in conflicting views not wholly based on medical knowledge or theory, and

"Whereas, conflicting testimony tends to destroy public confidence in the medical profession; Now therefore, be it

"Resolved: That a committee of three be appointed to study the subject of medical expert testimony in Connecticut and elsewhere; this Committee to confer with the Judicial Council of Connecticut, the State Bar Association and any State Association of persons who habitually are called upon to give expert testimony, and to explore the possibilities of devising a state system whereby experts giving testimony shall be selected and paid by the Court even though other experts appear for either party."

Subsequently a Committee on Medical Expert Testimony was appointed and a report of progress was made at the annual meeting in 1936. At this time your Committee wishes to make a further report of progress.

Since the formation of the present Committee we have studied the subject of medical expert testimony in Connecticut and elsewhere, conferred with the Judicial Council of Connecticut, the State Bar Association, the Connecticut Society for Psychiatry, the Bureau of Legal Medicine and Legislation of the American Medical Association, attorneys at law, physicians and others interested in the subject of expert testimony. We have also reviewed the Presidential Address of Dr. Thomas P. Murdock.

At several meetings with a special committee appointed by the State Bar Association, we have discussed the subject of expert testimony. Subsequently the following draft of a proposed bill relating to expert testimony has been drawn by the special committee of the State Bar Association as an expression of the view of that committee:

"AN ACT RELATING TO EXPERT WITNESSES

"Be it Enacted by the Senate and House of Representatives in General Assembly Convened:

"1. In any civil action pending in the Superior Court or the Court of Common Pleas wherein a controversy arises calling for the use of expert witnesses, any party to such action may, within twenty (20) days after issue joined, or thereafter at the discretion of the Court, upon posting with the Clerk of the Court in which the action is pending a bond or recognizance, as hereinafter provided, file a motion with the Clerk or said Court asking the appointment of one or more expert witnesses to be employed by the State, to be paid as hereinafter provided, to examine into the question or questions involved in said action calling for the expert evidence of such witness or witnesses, each within his field, and the Court shall thereafter appoint one or more properly qualified and disinterested persons to investigate the circumstances and each to report to the Court in writing his opinion within such time as the Court may direct. The Court

may extend the time for filing such reports in its discretion.

"No more than one expert on any subject shall be appointed in any one action unless a substitute shall be appointed for an expert who shall decline to act or be unable to act. This provision shall not be construed to prevent the appointment of more than one person in any profession or occupation in cases where questions are involved calling for expert opinion within the field of such profession or occupation but from different branches or specialties thereof.

"If the judge before whom any application for the appointment of an expert is pending, shall feel that the adoption of the procedure authorized by this section would result in an unreasonable delay in the trial of the action, he may, in his discretion, refuse to appoint any expert.

"The report of any expert made as herein provided shall become a record in the file of the case and shall be open to inspection by any party thereto.

"The compensation of any expert appointed in any action as herein provided shall be fixed by a judge of the Court in which the action is pending upon the termination of the litigation involved and shall be paid to said expert by the Clerk of Court within sixty (60) days of the judgment in, or settlement of, the action.

"At the time of the filing of a motion for the appointment of an expert or experts, the moving party shall file with the Clerk of the Court in which the action is pending a bond or recognizance to the State in a penal sum which shall be equal to $50.00 for each expert requested by the motion, on the condition that within thirty (30) days of the termination of the litigation, the Clerk will be reimbursed in the amount of the expert's fee; and upon the payment to the Clerk of the expert's fee, the obligation of the moving party under such bond or recognizance shall cease, provided that in difficult or extraordinary cases the Court may order the face amount of such bond to be increased to cover the unexpected fee or fees of any expert appointed.

"The amount charged by each such expert for his services, when approved by the Court, shall be paid to the Clerk by the party prevailing in the case within thirty (30) days after the termination of the litigation, and shall by said Clerk be paid to such expert, and the amount so paid by the prevailing party shall be taxed as costs in his favor against the losing party, provided, however, that if the losing party be the one obligated on the bond or recognizance aforesaid, he may, within said thirty (30) days, pay said amount to the Clerk, and in such event the amount thereof shall not be charged against him as costs in favor of the prevailing party.

"In any case in which the Clerk is unable to collect any portion of such expert's fee, such portion of said expert's fee shall be charged by the Clerk against State funds.

"In instances where the litigation involved shall be terminated by a settlement or adjustment, or upon the withdrawal of any such action by the plaintiff, or upon the striking of any such case from the docket, said expert's fee shall, within thirty (30) days thereafter, be paid by the party making application for the appointment of such expert.

"2. In any criminal action pending in the Superior Court or Court of Common Pleas wherein there shall be a controversy calling for the use of expert witnesses, the Court may, on its own motion or on the motion of either the State or the defendant, appoint a properly qualified and disinterested expert to investigate the circumstances and report to the Court in writing as the Court may direct. The fee of such expert shall be fixed by the Court and paid by the Clerk."

Your Committee approves of this bill in principle but would advise that no final action regarding it be taken at this time. The bill is to be presented to the State Bar Association at its coming annual meeting and it is believed that at the annual meeting of our Society in 1938 the bill can be presented in its final form for submission to the 1939 Legislature by the State Bar Association and the Connecticut State Medical Society.

In any bill which may be presented concerning expert testimony, the term "expert" is of cardinal significance. Whether or not a witness is in fact an expert is, in the last analysis, determined by the Court upon the basis of the witness' experience, studies and opportunities to become especially skilled about matters wherein a judge or jury lack such special skill and knowledge.

In the above bill, experts would be appointed by the Court. To insure the competence of medical experts so appointed, your Committee recommends that the Connecticut State Medical

Society supply the courts of Connecticut with a roster of its membership. Such a list should be in the form of a directory similar to the directory of the American Medical Association, or the membership classified according to general practice and the specialties. Under the latter plan a member, classified as a specialist, should be certified by one of the American Boards of certification or possess qualifications comparable to the requirements of such boards.

In conclusion your Committee recommends:

1. That the Committee on Medical Expert Testimony be continued.

2. That this report be referred to the Council, with power.

Respectfully submitted,

OTTO G. WIEDMAN,
Chairman

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REPORT OF THE LEGISLATIVE SECRETARY AND THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

CHARLES W. COMFORT, Jr., M.D.
New Haven

Mr. President and Gentlemen of The House of Delegates:

This Committee has been mainly occupied with the current session of the General Assembly. The organization of the two branches, resulting in the introduction of duplicate bills, added to this Committee's work. Some four hundred Senate bills and seven hundred House bills were followed during the session. Effort was made to at least read every bill which might pertain to the medical profession, individually, locally or generally. The Society has been represented at legislative committee hearings of these bills, two, three or four days weekly throughout the session.

The policy again followed has been to register in favor or opposed to a given bill, with defensible explanation for such attitude; in cases where parts of a proposed measure were commendable, such fact was stated, with constructive offering to replace objectionable parts unless deletion was considered necessary. The Society has been represented as appearing in order to give technical advice and information, to safeguard public health welfare, to maintain or elevate standards for the right to practice, and with a minimum of economic self-seeking. Lobbying consisted solely in informative talks with individuals, further explaining the positive attitude of medicine. In no instance has it been necessary to ask any individual to vote for or against a given bill, nor has it been necessary to employ any legal assistance. It can be affirmed that the legislators were anxious to be fully informed regarding healing art practice and public health, and were desirous of legislating for public health welfare. The effectiveness of the Society's influence — if any — is believed chiefly due to medical representation; the employment of an attorney or lay lobbyist for medical or public health measures would lesson the Society's influence.

Certain policies for the Society should be studied and determined during the next two years, in order that the Committee on Public Policy and Legislation shall be guided in its work.

1. Policy with reference to the reorganization of state departments. This was one of the major issues of the present legislature, and undoubtedly will be in the 1939 General Assembly. The two phases of importance to the medical profession were: (a) the formation of a new State Department of Professional and Vocational Licensing, and (b) placement of state institutions, mental and tuberculosis, under the State Department of Public Welfare. While many factors would seem to favor both of these proposals by the Reorganization Commission, there are at least equally definite objections.

The Society was registered as opposed to the replacement of the Secretary of the Connecticut Medical Examining Board by the lay executive secretary proposed in the Reorganization Commission's Department of Professional and Vocational Licensing; if a coordinating authority must be designated to secure administrative control or supervision over some twenty-odd boards or commissions, it was suggested that a commissioner be appointed rather than an executive secretary, permitting the secretaries of the several boards to continue their highly specialized work. Placement of the tuberculous and mental hospitals under the Department of Public Welfare was opposed on the ground that the medical problems for the sick persons in these institutions linked with preventive and after care and treatment, transcended the public welfare problems,

and medical control was advisable rather than lay; and further, that decision regarding the best procedure could not properly be made in the short time after the release of the Commission's report. No action was taken by the General Assembly on these phases of reorganization.

The Society should determine its position, to be best shown by a practical far-seeing solution in line with the motives for reorganization and beneficial to the State as a whole.

2. Policy with reference to the Report of the Commission to Study Laws and Facilities for Prevention, Treatment and Care of Mental Diseases and Defects. The report of this Commission was a brief generalized statement, practically valueless, like the reports of similar commissions of the past. The Commission introduced a large number of bills, nearly all based upon the formation of a new State Department of Mental Health, to take over the state institutions for mental diseases and mental defectives, and to capture the Bureau of Mental Hygiene of the State Department of Health. While presumably patterning the new department on the present State Department of Health, the proposed statutory provisions for the new department were quite unsatisfactory and much too loosely drawn. The plan was in opposition to proposals of the Reorganization Commission which was striving for reduction in the number of state departments, though that Commission politely deferred somewhat to the Mental Commission. The prevention, treatment and care of these cases is one of the major problems for the State, growing hydra-like. The medical profession — not just those specifically concerned with mental disease — should determine an economical, practical, long-range policy and plan, because energetic medical prevention and treatment must predominate the public welfare problem of housing, feeding and clothing, if any hope can exist of stopping the more and more rapidly increasing number of state wards in this category.

In conjunction with the Committee on Public Health, policy for the Society was determined as follows: (a) opposition to the immediate formation of a new state department as organized in proposed legislation, though favoring such a department properly organized; (b) opposition to the placement of mental institutions in the Department of Public Welfare, opposition possibly to be lessened by a much more specific definiton of functions, duties and powers written into the law, than was suggested by the Reorganization Commission; (c) general concurrence with the State Department of Health that institutions and custodial care were not parts of that Department's legitimate activities, which have always been strictly limited to prevention, and which made mental hygiene a very proper activity of that Department, an activity always seriously limited by insufficient appropriations; (d) deferment of immediate action to permit study and formulation of an acceptable plan for the 1939 General Assembly, with a responsibility upon state institutions to develop a voluntary coordinating system for care, treatment, parole and after-care, and upon the State Department of Health, to activate mental hygiene, provided sufficient funds were appropriated.

The General Assembly rejected or failed to act upon all measures proposed by the Special Commission on Mental Diseases except one, which modernized the nomenclature of the statutes.

3. Policy with reference to the Annual Registration Fee. Annual registration was originally introduced as a public protection, following the medical practice scandal of 1925; a fee of two dollars was charged to all persons licensed to treat, prescribe for, heal or otherwise alleviate human ills, deformity, ailment or disease, except dentists, optometrists, or Christian Scientists; the monies so derived originally were to be used to defray the cost of registration and to prosecute violations of the licensing acts; a sizable sum now reverts annually to the State's general fund, without "ear-marking" and without commensurate increase in the budget of the State Department of Health, the agency charged with these functions.

The Society has consistently opposed the principle of this charge as being a discriminatory tax; that the protection of the public from incompetent practitioners was a safety and police responsibility of the state, the cost of which was a public charge, not payable from special-group levy, from which the special groups derived no benefit over that accruing to any resident of the state. The Society has biennially, with two exceptions, introduced legislation to eliminate the two dollar fee, though endorsing the procedure of annual registration. These bills are invariably rejected, with consideration of the underlying principle entirely lost, and the legislators decry-

ing the picayune and unsavory niggardliness of the profession. Such was the fate of the Society-sponsored bill introduced this year.

The need for re-determination of policy arises from a legislative trend which will rapidly grow, namely, special taxation of the healing professions. A bill to this effect was introduced this year; its rejection was inevitable because it included lawyers, had this group not been included, no one can tell what might have happened. The *profession* of medicine is being supplanted in the lay legislative mind by the *business* of medicine, despite our own beliefs, assertions, or acts of charity; the search for public revenue leads to increased or new taxation of all business; medicine, or dentistry, or other profession, is presumed to be a profitable business, as publicly gauged by its cost, and therefore, if not at a special higher rate, at least properly taxable with mercantile, manufacturing or other business. General opposition to a state income tax prevents effective demand for that more just alternative to secure necessary revenue. The relicensing fee is common to many occupations and trades; it is charged generally in other states where annual registration is required.

The Society must determine whether discontinuance of futile effort to eliminate this fee will lessen demand for special tax on the professions or will improve its position to oppose such special tax.

4. Policy with reference to automobile financial responsibility. The Governor's Temporary Commission to Study the Financial Responsibility Act published its detailed report after the General Assembly was in session, and late in the session introduced a bill which would have, by special two dollars annual tax on all registrants, created a state fund from which would be paid up to three hundred dollars of medical, hospital and nursing costs of persons injured by motor vehicles, said fund to be reimbursed by the injuring motorist when liable before re-registration.

Through a questionnaire, the Society had attempted to secure factual data regarding the economic gain or loss sustained by its members in the treatment of motor vehicle accident cases. Since almost all of these injuries receive hospital treatment, the aid of the hospitals was asked to list every motor vehicle case in which the cost exceeded ten dollars admitted during a certain period, and to request the staff to designate responsible members to secure from other staff members and local physicians supplemental data regarding the injured person's economic loss, value of attending physicians' services, amounts of bills, payments received, et cetera, for each case. Less than five hundred replies were received, many of these simply stating no such cases were treated. The hospital-case part of the plan served to produce valuable hospital service data, but was valueless for data concerning gain or loss to practitioners. Only two hospitals showed evidence of fairly accurate individual physician's cooperation. No statistics from the medical profession were made possible on a base sufficiently broad to furnish specific legislative argument; the findings of the Governor's Commission that the group called upon to treat these cases suffered next heaviest to the injured persons themselves, was of course confirmed.

The following conclusions regarding the Society's general attitude on this subject were reached:

The Connecticut State Medical Society does not favor: compulsory liability insurance; a state liability insurance fund; a state fund derived from levy upon all motor vehicle registrants.

The Connecticut State Medical Society does favor strict and impartial enforcement of existing state laws and local regulations governing motor vehicle operation, with substantial penalties for convicted violators; and suggests the following procedure re financial responsibility:

1. Every applicant for registration of a motor vehicle shall furnish proof of financial responsibility before registration of such vehicle is finally issued, such proof to be in the same manner and under the same conditions as prescribed under Section 1609 as amended, except that the provisions regarding violation, conviction, unfavorable record, et cetera, as contained in subsection (a) (Sec. 621c), shall not apply, and except that evidence of financial responsibility shall not be cancelled nor returned at the end of three years as provided in subsection (g) (Sec. 624c).

2. Any person who cannot furnish evidence of financial responsibility as prescribed under Section 1609 as amended, because considered as unsuitable risk by insurance carriers or bonding agencies or for other reasons considered adequate by the commissioner of motor vehicles, shall pay an additional annual fee for registration of each

motor vehicle, the amount of such extra fee to be as may be determined, either nominal ($5.00) or up to the equal of the prevailing insurance company premium. These additional fees shall constitute a separate fund, from which the hospital and medical bills, compensation for lost income in cases where dependents of the injured would become public charges, and such other damages as may be determined, may be paid promptly for persons injured by motor vehicles paying the additional fee, or for accidental injuries where no responsibility exists and the injured person has no financial resources; provided, negligence or wilful intent on the part of the injured person shall be made punishable by fine or imprisonment to the amount of the liability incurred for total medical care, compensation and damages; and provided further, that, pending legal determination of responsibility for injury, the commissioner of motor vehicles shall be given power to hold the registrant responsible when one vehicle only is involved, or to hold the registrants of two or more vehicles equally responsible. If the fund should become adequate to meet all proper payments or expectancies, a graded annual reduction of the additional fee could be authorized by the commissioner of motor vehicles, based upon the record of the registrant.

3. Any additional-fee registrant, who has been involved in a personal injury case for which payments from said fund have been made, shall have his registration suspended or his re-registration refused until he shall have fully reimbursed the fund for all payments made or shall have made provision satisfactory to the commissioner of motor vehicles for such reimbursement, or shall have come within the jurisdiction of Section 1609 as amended through legal process.

The Connecticut Hospital Association introduced legislation to provide payment for hospital and nursing services through a one dollar annual tax on each registrant. This bill, as well as the Commission's, was rejected, together with a bill for compulsory liability insurance. While the Society did not introduce legislation to this end, the Governor's Commission bill was supported as affording some medical relief. The legislative argument against both of these bills recognized the relief-needed situation but showed they afforded relief to very special groups, gave no actual assistance to the injured person more than any injured person would get, added burden to the registrant who carried his own insurance, et cetera.

It would seem the Society should continue study of this subject, with hope of evolving some plan for making and maintaining a fund from which medical services and compensation to non-liable injured could be paid. It is felt the economic loss to hospitals should be covered by request for increase in their state grants, based upon proven need therefor in loss from handling both state and automobile cases.

5. Policy with reference to control of barbital or other hypnotic or somnifacient drug. The Society again introduced its bill to limit to prescriptions the sale of barbituric acid and its myriad derivatives. Such limitation was strongly opposed by the State Pharmacy Commission and the State Pharmaceutical Association, on the grounds that no danger existed from indiscriminate use of these drugs, that control of their sale by the State Pharmacy Commission had removed them from unauthorized and cut-rate places and afforded all the safeguarding necessary for public protection. Similar argument had been used two years ago by the same representative of the Pharmacy Commission in effort to eliminate cannabis from the uniform narcotic act and even to defeat the entire act; this year he remarked before the legislative committee how fortunate it was cannabis had been included. Needless to say, the anticipated unfavorable reports and the rejection of the Society's bill were forthcoming.

The question for determination by the Society is whether such legislation shall be introduced biennially, at least for educational purposes, or whether the control will be left to the Pharmacy Commission until that time when the public will demand efficient control and regulation and the medical profession will be blamed for allowing such a situation to exist. In either case, any special or legislative committee of the Society will require factual data submitted by individual practitioners and institutional superintendents or chiefs of staff,— report of each case of self-medication abuse or addiction, to include the preparation used, the daily quantity and cost, where obtained, and the major symptoms resulting from such excessive consumption. In addition, each practitioner should exert effort to

learn the source of supply for each of his patients, whether as prescribed or self-sought, with report of any place other than a licensed pharmacy, and of such licensed pharmacy in cases of addictions. Such reports should be sent promptly to the Legislative Secretary of the Society for compilation. Many pharmacists recognize the dangerous properties of these drugs and do limit the amount of sales and do advise self-medicators; many also concur with the medical profession that sale should be limited to prescriptions. Only by such professional cooperation can the need for protective legislation be proven. The profession knows such need already exists; its efforts have been directed for prevention rather than the difficult task of salvage.

6. Policy with reference to the privilege accorded osteopaths to be examined by the Connecticut Medical Examining Board. In order to safeguard the public, this Society in 1929 made an agreement with the Osteopathic Society whereby the knowledge qualifications of osteopaths in the use of medicines for treatment and in the practice of minor surgery would be determined by our Medical Examining Board rather than by the Board of Osteopathic Registration and Examination. No official charges or complaints, as provided for in the law, have been filed under this agreement and the statutes which govern it. Individually sponsored legislation is introduced each session to nullify the agreement.

The Society should re-determine the protection value to the public of this procedure; if found to be undesirable, the Society's integrity requires official notification to the Osteopathic Society that the agreement is abrogated and legislative annulment of the provisions will be sought, such notification to be given the Osteopathic Society in time to enable them to amend their own licensing act to permit such examination by their own board; if found to be in the public interest, members should be prevailed upon to desist from actions which will jeopardize a mutual agreement for public protection. Reference to the report of the Committee on Medical Education and Medical Examination will show that seven osteopathic applicants under the present agreement were rejected during the last year. This year's bill was submitted as a House committee bill rather than openly introduced with other measures, was as usual poorly drawn and incapable of attaining the objective of its author, and was never reported out of committee. The Board of Directors of one of the County Medical Associations was represented as supporting the bill.

The Society introduced a bill to make the payment for last illness medical services an equal priority with payment of funeral expenses in the settlement of insolvent estates. Discussion of this subject with judges of probate led your Committee to withdraw the bill, the probate judges in the larger districts already trying to protect physicians in those cases which reach their courts, and it being felt a working agreement through the Probate Assembly would bring better results than attempted legislation which would unquestionably be rejected. It was reported that the withdrawal of the bill was quite a disappointment to a group of the legal profession which had planned to aid its enactment since, by the wording, the expense of settling the estate (lawyers' as well as probate fees) had been made a single first priority instead of the present first priority shared with the undertakers. Only one instance of medical loss in a probated case was presented to your Committee as basis for this proposed legislation in accordance with the vote of The House of Delegates. Several of the probate judges stated they knew of no dissatisfied physicians in cases settled in their courts, one of these judges making it his practice to specifically inquire regarding this point. Pending the working out of this cooperative plan, and the compilation of a series of injustices in the probate settlement of such estates, it is considered unnecessary for the Society to continue effort for this legislation.

The Society's bill to amend the State Uniform Narcotic Act, to include the sale-of-exempt-preparations section of the model act was passed by both Houses and duly signed by the Governor. Deleted from the model act in 1935 upon the recommendation of the Federal Narcotic Bureau's representative as a compromise with the State Pharmacy Commission, which was opposing the uniform act, the bill to enact the section was this year strongly endorsed by the spokesman for the State Pharmacy Commission and Pharmaceutical Association, and consequently was enacted.

The bill to permit teachers in the Yale University School of Medicine to be eligible for examination for license to practice without being per-

manent residents of the State or intending to permanently reside therein, was enacted. This measure was desired by the Connecticut Medical Examining Board and was approved by The House of Delegates.

The Society's bill to limit treatment by X-ray and radium was finally enacted in a very much changed and not wholly satisfactory form. Originally designed to prevent therapeutic use of X-ray by laymen, trained only by salesmen of equipment firms, from removal of superfluous hair and similar pseudo-medical purposes, members of the medical and dental professions failed to distinguish between diagnostic and therapeutic use of X-ray. The original bill would not in any manner have limited the taking of X-ray films or plates by any person, lay or professional. Such failure to study the exact wording almost caused defeat; the osteopaths realized the importance of such protection to the unknowing public and through their representative in the legislature saved the bill and materially aided its final enactment. The dentists insisted to the end upon being exempted and were so treated, although it was never demonstrated they used X-ray for other than diagnostic purposes or ever desired to use any form of radium.

Medical examiners' fees for external examinations, reduced to five dollars by the 1935 General Assembly, were restored to ten dollars.

Efforts by the Eclectics involved in the diploma mill scandals to regain recognition, individually and collectively, were all defeated.

The Chiropractors enacted legislation requiring their licensees to attend annually two post-graduate instruction sessions arranged by their examining board, with revocation of license as a penalty for non-attendance. A proposed bill to broaden the definition of Chiropractic, whereby they could use or prescribe natureopathic methods or even drugs, was not "pushed" and was not reported out of committee.

The Natureopaths desired to incorporate and establish in Hartford "The College of Natureopathic Physicians". A "University of the Healing Arts" had been established in Hartford, including a "College of Natureopathy", a "College of Chiropractic," and a "School of Physical Therapy"; after a short period of operation, the "University" closed when the State Department of Health showed them they were operating illegally. The incorporators of the new school, as named in the bill, were all save one graduates of the Blumer School of Natureopathy, an extremely low-grade school in Hartford which was closed as a result of the diploma mill investigations. The Senate bill for this school was rejected; the House bill was not reported out of committee. It should be noted that considerable political pressure was exerted in favor of this bill by laymen who failed to realize its full import; that friends or satisfied patients guaranteed necessary financial support; that even the State Department of Education's required approval was secured. The moral stamina and perception of the legislators who prevented the disgrace of authorizing a low-grade healing art school in Connecticut deserves the public's and profession's grateful commendation.

The Chiropodists desired and secured their own examining board and otherwise raised standards and improved their practice act. The Connecticut Medical Examining Board acquiesced in their desire for a separate board, insisting only that the State Commissioner of Health should remain an ex-officio member. All recommendations of the Medical Examining Board, of the State Department of Health, and of this Committee, were accepted by the Chiropodists, and the Society was registered in favor of the legislation.

The legislators refused to license any person to practice any form of the healing art, recognizing the State had established standards and procedures to gain such license, that the Legislature was not a proper body to determine an applicant's qualifications.

Osteopaths were authorized to make the examination, to take the blood, and to complete the certificate required by law for issuance of a marriage license.

A bill was introduced and rejected requiring that the report of cases of gonorrheal vaginitis in children must include the full name of the patient. Present law requires report by initials, age and address. The proposed legislation was offered because of some difficulty experienced in locating the source of the infection in a small outbreak, the infecting child living in a tenement, and initials not providing sufficient identification for easy apprehension. This subject was most carefully considered by the Council of the State Society before introduction of the Society-sponsored reporting bill enacted in 1935, whether

to require report by number as in the case of adults, by full name and address, or by initials, age and address. The Council decided initials, age and address would avoid any stigma to the innocent victim, and would provide adequate identification possibility by the health authorities, even if entailing some additional work. This proposed legislative change was introduced by a local health officer, with the support of the Board of Directors of his County Medical Association, but without reference to the State Society or its Committee.

The measures introduced or sponsored by the State Department of Health have been or will be listed and discussed in the publications of that Department which every physician receives; detailed discussion in this report is not therefore required. The biennial effort of the State Department of Labor to take over the Bureau of Occupational Diseases and all preventive health work in that field, or to secure authority to duplicate it, was again successfully thwarted. Future legislative committees of the State Society must ever be alert to help prevent such change.

The State of Connecticut is most fortunate to have as its Commissioner of Health, Doctor Stanley H. Osborn. Never is he more appreciated nor more valuable than during the sessions of the General Assembly. His legislative activities are conducted without regard to politics, with no self-aggrandizement, with realization that the State employs him as a public health expert and authority to efficiently administer its public health activities. In that spirit the legislators learn to regard him, to accept his advice, to look to him for guidance. Especially during this year's session, there seemed to be no State Department head less suspicioned or criticized, more highly respected, more thoroughly trusted, by the legislators. Frankly telling the legislators he is paid to properly advise them and that their acceptance or rejection of his advice is their own responsibility, he wins their confidence to secure good legislation and to defeat the poor or bad legislation. His is practically the sole credit for preventing unqualified practitioners gaining or regaining license by legislation in this State, the bills attempting this always having committee hearings which call for utmost courage, fearlessness, patience and self-control. He adheres to principle; he concerns himself solely with matters which are rightfully within his official sphere; any increased authority he may desire is solely for the purpose of more effectively administering public health, not to secure power for power's sake. Without bluster or commotion, he doggedly fights for proper health legislation, session after session, if necessary. He desires and asks the approval of organized medicine for those measures which concern it; he has never wilfully attempted to usurp or trespass upon any prerogative, privilege or right of a general practictioner; any semblance of state medicine which may have been unjustly attributed to him or his department will be found to be due to misinformation or to inertia and indifference in the medical profession which made the State assume rendition of necessary service. He merits this Society's complete confidence and strongest support. Your Legislative Secretary counts such association as he has had with this State official, especially during the last four sessions of the General Assembly, as one of the greatest privileges of his service to the Society.

This report would be more incomplete if it did not express appreciation to the Committees on Public Health and Safety, Public Welfare, and Labor, and to many individual members of both branches of the 1937 General Assembly for their courtesy and interest in the Society's legislative activities and their willingness to help in the broad field of public health welfare. Their friendliness and cooperation lightened the drudgery and wearing grind of so hectic a session; their apparent desire for and acceptance of such technical information as could be given was gratifying through realization that public health education was being furthered, a result more purposeful than legislative enactment.

Respectfully submitted,

CHARLES W. COMFORT, JR.,

Legislative Secretary

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REPORT OF THE DELEGATE TO VERMONT

I wish to report that as Delegate to the State of Vermont I attended the meetings both days at Burlington, that excellent programs were presented, and that your Delegate at the request of the Chairman opened the discusson on the paper presented by his old friend and former fellow

house officer, John J. H. Upham, President-elect of the American Medical Association, who discussed the circulatory diseases of middle and advanced life. The meeting was well attended, the weather was fine, the scientific exhibit was very creditable, and a good time was had by all. Pie for breakfast.

GEORGE BLUMER

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SECOND SESSION

May 20, 1937

The Second Session of The House of Delegates convened at 10:00 A.M., President Patterson presiding.

I. Upon recommendation of the Council the following officers and committees were elected for the ensuing year. (See pages 3 to 9).

II. Upon recommendation of the Council the following amendments to the By-Laws of the State Medical Society were adopted:

1. Amend Chapter I, Section 8, by deleting "not residents of this State" so that the Section will read: Chapter I, Section 8, "Honorary Members. Eminent physicians may be elected Honorary Members by a major vote of the House of Delegates after nomination of one year, but shall not exceed three in any one year."

2. Amend Chapter V, Section 1, by the addition of "a President-elect" so that the Section will read: Chapter V, Section 1, "The Officers of this Society shall be a President, a President-elect, two Vice-Presidents, a Secretary, a Treasurer, and eight Councilors."

3. Amend Chapter V, Section 4, by the deletion of the following: "but no delegate shall be eligible to any office named in the preceding section except that of Councilor" so that Chapter V, Section 4, shall read: "The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the General Session, and no person shall be elected to any such office who has not been a member of the Society for the past two years."

4. Amend Chapter VI by the addition of a new Section 2, and change the numbers of the subsequent sections 2, 3 and 4 to become 3, 4 and 5; the new Section 2 to read as follows: "At the Annual Meeting in 1937, and at each Annual Meeting thereafter, the Council shall nominate to the House of Delegates a President-elect who shall become the President of the Society at the conclusion of the Annual Meeting of the next following year without further formality. The duties of the President-elect shall be to aid and assist the President in any way designated by him, to familiarize himself with the activites of the Society, and to attend the meetings of the Council and take part in its deliberations but without vote."

5. Amend Chapter VI, Section 3, by the substitution of $5,000 for $1,000 so that the Section will read: Chapter VI, Section 3, "The Treasurer shall give bond in the sum of $5,000."

6. Amend Chapter VIII, Section 1, by the deletion of "A Committee on Medical Ethics and Deportment," and Section 7 by the deletion of the entire Section. (This has to do with the State Committee on Medical Ethics and Deportment which has never functioned since it was instituted, and it is proposed to have the Council assume the function of this Committee if it is ever required.)

7. Amend Chapter VII by the addition of Section 7, "The Council shall serve as a Board of Review for cases of claimed malpractice as may be referred to it by any component County Association's Committee on Medical Ethics and Deportment."

III. The Council nominated for the newly created office of President-elect Dr. Hugh B. Campbell of Norwich who was unanimously elected.

IV. The Council concurred in the recommendation of the Committee on Honorary Members and Degrees and nominated for Honorary Membership in the Society: Professor Russell Henry Chittenden (Hon. M.D., Connecticut State Medical Society, 1934) New Haven. Doctor Chittenden was unanimously elected.

V. The Council recommended the acceptance of the budget as presented to The House of Delegates with the addition of an item of $50.00 for the quarterly auditing of the Treasurer. This budget was accepted; and the Council recommended to The House of Delegates that the dues of the Society for the current year 1938 be $5.00 per capita. This recommendation was adopted.

VI. The following recommendation of the Council in regard to the publication of the JOURNAL of The Connecticut State Medical Society was adopted:

THE JOURNAL OF THE CONNECTICUT STATE MEDICAL SOCIETY

That that part of the Resolutions having to do with the publication and the distribution of a Quarterly Bulletin, passed by the House of Delegates in a special meeting held in New Haven on January 16, 1936, be rescinded, to be effective January 1, 1938.

The Council recommends to the House of Delegates that, commencing with January, 1938, the Society shall publish a monthly periodical to be known as the JOURNAL of The Connecticut State Medical Society which shall be delivered monthly to each member of the State Society without charge. This JOURNAL shall publish the Transactions and Scientific Proceedings of The Connecticut State Medical Society, and such other material as may be deemed desirable by its Board of Editors.

The Secretary on Scientific Work shall be the editor-in-chief of this JOURNAL. On or before June 10, 1937, the Council shall appoint four members of the State Society to serve as an editorial board of the JOURNAL; one appointee of this Board to serve until the Annual Meeting in May, 1938; one to serve until the Annual Meeting in May, 1939, one to serve until the Annual Meeting in May, 1940; and one to serve until the Annual Meeting in May, 1941. At the Annual Meeting of the Society in 1938, and annually thereafter, the Council shall nominate to the House of Delegates a member of the Society to serve as a member of the Editorial Board of the JOURNAL for a period of four years.

The entire editorial and advertising policy of the JOURNAL of The Connecticut State Medical Society shall be vested in the above-mentioned Editorial Board of which the Secretary on Scientific Work, serving as editor-in-chief of the JOURNAL, shall be Chairman. This Board shall elect from among its number, but not the Secretary on Scientific Work, one member who shall be designated as the Custodian of the JOURNAL Funds. He shall receive and disburse all monies properly belonging to the JOURNAL, and his account shall be audited each year just preceding the Annual Meeting of the Society by the Society's Auditing Committee. This Custodian shall receive an honorarium of $100.00 per year, to be paid from the Funds of the JOURNAL. Commencing with July 1, 1937, the salary of the Secretary on Scientific Work and Editor of the JOURNAL, shall be $1,500.00 per annum, paid from the Funds of the JOURNAL, in twelve equal monthly installments of $125.00 each.

On or before the tenth day of January, 1938, and annually thereafter, the Treasurer of The Connecticut State Medical Society shall pay from the Treasury to the Custodian of the JOURNAL Funds, a sum computed upon the basis of $1.25 per capita for the membership of The Connecticut State Medical Society; such payments shall be considered to be the subscription price of the JOURNAL for members of the State Society.

VII. Upon recommendation of the Council, amended by Dr. D. C. Y. Moore, it was voted that the approval of The Connecticut State Medical Society be given to prepaid hospital service contracts only when such contracts exclude medical services of physicians other than those customarily rendered by a resident house staff, and when such contracts are underwritten and administered by non-profit making organizations.

VIII. Upon recommendation of the Council The House of Delegates voted to accept the invitation of the New London County Medical Association to hold the Annual Meeting of the Society in 1938 at the Hotel Griswold, Groton, on June 1 and 2, providing these dates do not conflict with the Annual Convention of the American Medical Association.

IX. The House of Delegates voted to adopt the recommendation of the Council that in the future the Treasurer shall make his report for an annual period extending from May 1 to April 30.

X. The House of Delegates voted to adopt the recommendation of the Council that the vote previously passed by the House to the effect that the Eye, Ear, Nose and Throat Section be required to hold its meeting on the first day of the Annual Meeting of the Society be rescinded.

XI. The Council recommended to The House of Delegates that the Council be authorized to appoint a committee of five to review, revise, and codify the By-Laws of the Society, and that this Committee be instructed to submit a prelimi-

nary report to The House of Delegates at its Annual Meeting in 1938.

XII. The House of Delegates voted to adopt the recommendation of the Council that the Medical Society of the State of New York be invited to exchange with The Connecticut State Medical Society two official delegates to attend the Annual Meetings of the Societies.

XIII. The House of Delegates voted to adopt the recommendation of the Council granting permission for the organization of a Section on Orthopedic Surgery.

XIV. The House of Delegates voted to adopt the recommendation of the Council that the Report of the Committee on Medical Expert Testimony be retained by the Council for further consideration with instruction to bring in a report at the next Annual Meeting and provide for presentation of the subject at the fall meetings of the County Associations in 1937.

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STANDARDIZATION OF TREATMENT IN THE PREVENTION OF PRENATAL SYPHILIS

Untreated pregnant syphilitic women will give birth to diseased children four times out of five. Congenital syphilis may be prevented with almost certainty if, beginning not later than the fifth month of pregnancy, the syphilitic mother receives a minimum of 20 weeks of continuous treatment with an arsphenamine and a heavy metal given concurrently or in alternative courses. The results as to the infant are in direct proportion to the duration of pregnancy at the time treatment is begun, and something may be accomplished even in the last months of pregnancy.

Actual results in the field of prevention of congenital syphilis, however, lag far behind theoretical possibilities, partly because of incomplete education of prospective mothers, partly because of lack of medical cooperation. Four distinctive steps are essential with the mutual efforts of the public health authority, the social and medical organizations devoted to maternal and child welfare, and the medical profession as a whole. These are:

(1) The adoption of a routine serologic test for syphilis in every pregnant woman by every prenatal and obstetric clinic, every physician and every midwife in the country. This is obligatory that syphilis may be recognized.

(2) Systematic education of women to report to physicians or prenatal clinics for prenatal care earlier in pregnancy than is now the average case. This is obligatory that treatment of the pregnant syphilitic mother may be started early enough to ensure a healthy baby.

(3) Elimination of the delay of many days or weeks which now often occurs between the diagnosis of syphilis and the institution of treatment in pregnant syphilitic women. This is obligatory to ensure a healthy baby.

(4) Better application by physicians of the several methods of recognizing the presence or absence of congenital syphilis in the infant — cord Wasserman; X-ray; pediatric and serologic follow-up, especially intensive in the first few months of life. This is obligatory that when treatment of the mother has failed to protect the child through failure of diagnosis, delay in starting or neglect of treatment, the syphilitic baby shall be given the excellent chance of cure which early adequate treatment provides.

The stamping out of congenital syphilis is an easy accomplishment compared with the elimination of the acquired infection. Every syphilitic baby is a failure of maternal education, of the public health authority, and of the medical profession, which should cause us all to blush for shame. Congenital syphilis must go, and must go quickly!—*Weekly Roster and Med. Digest, May* 8, 1937.

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A NURSE

A nurse is a marvellous compound of science and nature. She is trained like a doctor, registered like a Holstein cow, starched like a full-dress shirt, and salaried like a farmhand. But can she do miracles? She can make a five-foot sheet cover a six-foot bed; and shake down a clinical thermometer without dislocating her wrist, or putting her patient's eye out.

The JOURNAL of The Connecticut State Medical Society

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MANUSCRIPTS.— Manuscripts should be type-written, double-spaced, on white paper 8½ x 11 inches. The original copy, not the carbon copy, should be submitted. Carbon copies or single-spaced manuscripts will not be considered.

Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

ILLUSTRATIONS—Two halftones or zinc etchings will be furnished by The Journal when satisfactory photographs or drawings are supplied by the author. Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

NEWS.— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

ADVERTISEMENTS.— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

SUBSCRIPTIONS.— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

REPRINTS.— Reprints of papers and obituaries may be obtained from the Editor at cost.

• Editorials •

THE JOURNAL'S FIRST BIRTHDAY

With this issue the Journal enters upon its second year. The reception accorded it, not only by the members of our own State Medical Society, but by editors and secretaries of other state societies, has been extremely gratifying. It has acquired a host of friends among the advertisers whose names appear upon its pages.

Beginning in January 1938 the Journal will become a monthly publication, as approved by the recent session of the House of Delegates in Bridgeport. Additional changes are the appointment of an Editorial Board to assist the Editor-in-chief, and the appointment of one of the members of the Board to be Custodian of the Funds. This latter office is necessary inasmuch as the Journal is to be an independent unit financially. For income the Journal depends entirely upon the per capita subscription allowed by the Council and upon its advertisers.

May we urgently solicit your increasing support during the coming year. Patronize our advertisers — they are selected and approved by the Council on Pharmacy and Chemistry of the American Medical Association. Mention the Journal when purchasing articles advertised. It helps. Read our book reviews. The publishers send us the latest material for your benefit. The Journal is glad to publish scientific papers from members of the various local and county organizations, or those of speakers who appear from time to time on programs other than those of the State Society. With the beginning of Volume II in January, arrangements may be made for binding copies of Volume I for your reference library.

During the coming year the Journal will continue to aid the County Associations in every way possible, and to more efficiently and creditably fulfill its function as the official organ of the State Society.

THE STEINER MEDICAL LIBRARY

To a past president of our State Society has been accorded a well deserved tribute. At its annual meeting in January of this year The Hartford Medical Society honored Dr. Walter R. Steiner by naming its library for him. In the words of the trustees: "Believing it will meet with the unanimous and hearty approval of our membership in our desire to honor him and to express publicly our appreciation and thankfulness to him for his many years of unselfish labor in our behalf, we recommend that The Hartford Medical Society shall tonight name its library The Walter R. Steiner Medical Library."

In so naming the Library of The Hartford Medical Society there has been honored the man who, above all others, has devoted many years to the building up of a library of which we are most justly proud. Dr. Steiner, by his keen love for books, his rare knowledge and his unselfish labor, has most skillfully assembled this collection unrivalled anywhere by one similarly situated. It is a fitting tribute, the more because Dr. Steiner has been outstanding as a physician and citizen, a secretary of the State Society and editor of its proceedings, a member of the Council and more recently its president. This honor has called forth expressions of approbation from many directions far and near.

The following quotation is from the Bulletin of the Medical Library Association, May 1937, written by Dr. W. W. Francis: "The Hartford Medical Society has done a very good deed which should warm the hearts of all librarians". In this same article Dr. Francis reminds us that Dr. Steiner was a favorite pupil of Osler and of Welch and that he came of a bibliothecal family. His father, Lewis Henry Steiner (1827-1892) was professor of chemistry and a learned physician of Baltimore and Frederick, Maryland. He helped to build up the library of the Medical and Chirurgical Faculty and in 1884 became the first librarian of the Enoch Pratt Free Library. The extraordinary development of this fine public institution at Baltimore was the life work of his elder son, Bernard C. Steiner, Ph.D. (1867-1926), who succeeded him and made a name for himself as an historian.

REVIEW AND PREVIEW

Those of us who were fortunate enough to attend the recent annual meeting in Bridgeport need no further assurance of its positive success. In attendance, it broke all previous records with a total of 429, straining the facilities to the utmost. The decision to have prominent out-of-state speakers undoubtedly was a big drawing card. Great credit is due the committee on arrangements for their excellent work in planning the details.

The session of the House of Delegates was conducted in a most commendable way, briefly yet entirely sufficient to accomplish the business presented. The two most important matters decided upon were (1) the creation of a new state office, namely, that of President-elect; (2) the expression of the sentiment of the House of Delegates regarding prepayment hospital service. With the increasingly complicated administrative affairs attendant to an ever enlarging organization, it is most desirable that the incoming President have a year in which to become acquainted with his new duties. Dr. Hugh Campbell, Superintendent of Uncas-on-Thames, is the first to fill this new office. He is a man well known to us all, a man whose personality, no less than his experience and training, will contribute much to the Society.

"Prepayment Hospital Service" has been the subject of discussion throughout the state for several months. In a previous session of the House of Delegates which convened to act upon this question there was much diversity of opinion and lack of discerning knowledge upon the part of its members. Since then, the opinions of the representatives have crystalized with the resulting vote disapproving any plans which include medical services other than those rendered by the resident house staff.

As we look into the future, the year 1938 offers a tempting outlook for our next annual meeting. The Hotel Griswold at Eastern Point is an excellent choice for our center of activity. There will be ample accommodations for all departments without restriction necessitated by lack of space. Additional attractions may become possible in the way of scientific exhibits; in representing other branches of medicine omitted from the program at the recent meetings; in advance sessions of the House of Delegates to prevent con-

flicts with scientific meetings; in prolonging the time to three days in order to enlarge the opportunity for further recreation and personal contact, which is one of the most valuable and lasting of the benefits derived from these sessions of our State Society.

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AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Your attention is invited to certain matters of importance as well as interest which were discussed and acted upon at the recent A. M. A. session in Atlantic City. The recommendations of the Committee to Study Problems of Motor Vehicle Accidents as they relate to more thorough examinations of drivers are timely. The symposium on the various phases of traffic accidents, if carried out, should be of value.

Of particular interest to members of our own Society should be the resolution introduced by the Ohio State Medical Association calling for a clarification of the policy of the A. M. A. on the question of group hospitalization, especially with regard to what services should be included. The resolution as finally presented to the House of Delegates set up a definition of hospital facilities very much the same as our State Society has done. This resolution was not passed but referred back to the reference committee.

The Bureau of Health and Public Instruction was directed to proceed immediately with measures to accomplish the proper governmental control of the use of barbituric acid and derivative drugs.

The American Neurological Association presented a resolution importuning the A. M. A. to take up at once the matter of the proper teaching of contraception at the medical schools and the organization of medically supervised clinics in hospitals.

Your particular attention is called to the address by Hon. J. Hamilton Lewis, U. S. Senator from Illinois, before the House of Delegates at its session Thursday morning, June 10. The text of this address appeared in the A. M. A. Journal, June 26, page 2221. Read it. A storm of protest has arisen from the profession over this message from Senator Lewis. See article entitled STATE MEDICINE AGAIN, page 438 this issue of the JOURNAL.

HOSPITAL SURVEY OF THE NEW YORK METROPOLITAN AREA

The United Hospital Fund in its report of the hospital survey for New York, Volume II, presents a description of the institutions and agencies concerned with the organized care of the sick in the Metropolitan Area, with an analysis of their use and cost, and a consideration of plans for the future. The cost of this survey was met by donations from several funds and foundations in addition to an appropriation by the United Hospital Fund itself. The purpose of the survey is well expressed by its study committee, viz, "to make available to the people and their local governments in the communities of this metropolitan area the facts upon which their own decisions must be based".

The survey includes studies of the characteristics of the population receiving service from hospitals, as well as reports of the institutions with their various departments. Non-professional types of hospitals or institutions also are included, as well as welfare and relief agencies concerned with the care of the sick. Mental institutions are given a place of importance.

Of all these various and diversified departments of health served by 13,433 practitioners, less than 2½% receive compensation. Of 50,000 hospital beds in the Metropolitan Area, ⅔ are allotted to ward patients, and are in constant use. The remaining ⅓ upon which the doctor relies in part for income, have an annual occupance of only 50%. The value of this free service is estimated to reach $60,000,000 in the Metropolitan Area alone. Therefore we agree with the New York State Journal of Medicine that the Survey Committee is justified in attempting to bring about some compensation to the practitioner for his tremendous contribution to the needy sick.

Much of the survey centers upon our own state with particular reference to Fairfield County.

The United Hospital Fund has made an invaluable contribution in presenting this material for the use of those interested in improving the organized care of the sick.

A LITTLE SHOT AT GOLF

F. H. Barnes, M.D., Stamford

One of the verses in the Book of Ecclesiastes contains the following, "Of making many books there is no end and much study is a weariness to the flesh". The preacher evidently subscribed to the idea there was little to write about and that using the grey matter too much not only causes brain fag but has its physical reaction as well. In spite of the warning, feel that I must say something in favor of our national pastime, the good old game of golf. It is the favorite form of exercise used by both business and professional men.

You will excuse me if I make a few suggestions as to the helpfulness of golf not only as a diversion but an actual help to those who enjoy the game. Some because of their shooting par excellence; others who seldom break the 100 mark but love the game for its associations. After a busy morning at the office or in the hospital what a thrill comes to one as the telephone bell rings and one of your friends chirps out, "What about a little round this afternoon?" No chance for a negative answer on a pleasant balmy day. Most of our New England courses are beautiful beyond description. The hills and dales, patches of woodland here and there, gorgeous views of the sound and rivers, the interesting specially trapped short holes, all are a means of diverting the mind into thoughts of the beauties of nature. Thus one forgets about all other troubles except perhaps the last d--- shot which sliced into the rough.

Looking back for the past three or more years and realizing what we have been through, in all fairness we will have to give golf the credit for many happy hours. We packed all our troubles in the old kit bag and enjoyed the game. To my mind this particular sport has been most helpful due to the fact that older men can play the game and play it well. Their ability to shoot straight down the alley makes up for the difference in years. You often hear the boys say, "The old man shoots 'em straight and keeps his eye on the pill". The sport is a well rounded one giving pleasure to old and young alike.

More of our women are taking up the game each year and some of them can make our best men players step out. It would seem to me that a round of golf in the open was a ten to one choice over sitting down to an afternoon of bridge and a lot of sweets for the finish.

From a physical standpoint the game is all that could be desired. It helps to flatten out that stomach and build up good strong muscles, keeps the weight in check and makes for all round coordination.

At a recent meeting of our County Society we had golf during the afternoon followed by dinner and a scientific session at night. We certainly had a bully time regardless of the fact that a windy day and deep grass in the rough pulled down the scoring. Shortly after the meeting one of my good friends, a member of the society, suggested that our fall meetings were getting to be golf tournaments. In reply I suggested that we did not interfere with the regular programme and that perhaps had he joined us on the nineteenth hole he would have thought differently about the matter. We must have our golf, at the same time we must see that at least the social hour before dinner should be open to and enjoyed by all.

During this period of depression many have taken large losses; other people have been out of work and unable to provide a living standard equal to that of prosperous times; in fact, matters generally have come to be pretty upsetting. Hard it is in times of trouble and upset not to become depressed and worried. Of course, we must expect this. Right here golf steps in with the result that hundreds of business and professional men have gone back to their next day's work refreshed and with new courage to take up life's battles after an afternoon spent in the open. Not only is there much good to be obtained from exercise in the open air with pleasant companions as an added inducement, but the fact that one loses himself in the game and seems conscious of nothing but the next stroke and keeping down the score for the day. Thus one forgets about self and trouble and the mind is diverted into the realm of pleasure.

The nineteenth hole before mentioned is probably the most played hole of the lot. Here it is that the game is played all over again in detail and one finds good reasons for their score being out of line. Your pal sympathizes with you and tells you you were not up to the mark in your playing, etc. Here the final count is made and

you are told just how to cash in, either for win or lose. In fact the small wager seems only to add zest to the game.

Some days when playing is a little sour and you cannot hit them straight you resolve that you are not or never will be a golf player; but the next trip, out you go, all the previous game is forgotten and you are off for a good score. Is there any game which gives so much pleasure and healthful exercise to old and young as this favorite old game of golf?

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THE DOCTOR TAKES A HOLIDAY

You all know Dr. X. He lives in the city, in the borough, in the village, or out amongst the hayseeds and cockleburs. He is a specialist, a general practitioner, a hospital physician, or a laboratory worker. He is a plodder. He takes his job seriously, sometimes too darned seriously. In a way he has to — when people get sick they want a doctor. Then, too, there are shoes to be bought for the baby, a pony for sonny boy, an automobile for high school Kitty; and the apple of his eye, son John, is in medical college. The grass has to be cut, the house has to be painted, decent furniture must be kept in the house and a maid provided to help the wife do her work. God bless the helpmate! Bills have to be met, taxes must be paid, and the demand for community contributions must be adjusted, ranging from a free-will offering for a "pet parade", dedicating new buildings, to welcoming foreign visitors. It matters not what comes up; he is never surprised when some one calls and wants to see him right away. The gag usually runs, "the chickabees" are putting on an event, they need some cash, your name heads my list, etc., etc.

With all this in the background you can readily appreciate that Dr. X longs for a holiday. Even just one day, a real holiday, would be enough. So, he thinks about it, ponders over it, and finally decides to take "Mom" a-fishin'. When Mom gets this ready and that ready, packing this grip and that grip, Dr. X hints gently that they aren't going to Europe but just off for the day. Don't worry about his stuff for tonight; he'll pack his grip and be off early in the morning. So, "don't fret so much," he says to Mom.

Night comes, the telephone rings, new patients come, and lo! when he just begins to get out the old fishing tackle, a call comes for a long-distance visit to his best paying patient. Well, he will pack early in the morning. The old alarm goes off. The telephone rings; another telephone call and finally an emergency call just as he is about to leave the house. He parks Mom on the front porch until his return and away he goes. The weather is hot. Mom rocks and fans, fans and rocks for about 2 hours, when a cloud of dust heralds the return of the would-be fisherman.

At last we find him on the stream. A long-distance call at the clubhouse. This over, Dr. X's long strides take him up stream. We see him on his hands sneaking up behind a rock. He lands one, a big one. He gets "ants in his pants". He casts hard until he almost throws his shoulder out of joint. The stillness is broken, a voice is heard: "Gosh Doc, you are hard to find; I heard you were up here. Gosh almighty man, come quickly over to my house, my old woman must be having twins. I got your bags. For Gosh sakes, hurry, Doc."

The moon is bright, the night is still. Mom is unpacking. Mom's life seems to be one of packing and unpacking. Dr. X has a far-away look in his drooping eyes. The air is fresh, the trees are still. He hears the splashing over the dam, he sees a ripple in the pool, a jump, a cast, he hooks him, he is scuffling to land him, he hears a voice: "What's the trouble, dear? Don't you think you had better go to bed. Next year you will get your holiday." "That's right," says Dr. X, "next year. Believe me, I am going to take a holiday."

And so we chronicle the holiday of Dr. X. He may be a specialist, a general practitioner, a surgeon, a hospital man, a pathologist, or a roentgen-ray man. The obstacles which come between him and his holiday are the same but in different setting, even though the object of his pursuit may be other than a holiday of fishing. So be brave, brethren, hold forth and yield not to temptation, for yielding is sin.—*Penn. Med. Jour., May*, 1937.

From the Secretary's Office

CREIGHTON BARKER, M.D.
258 Church Street New Haven
Administrative Secretary

Everyone knows about the meeting in Bridgeport in May; it was a success from every angle. Nearly 500 members from the Society attended, the largest registration on record. Great credit is due Dr. Crawford Griswold and the members of the local Committee on Arrangements for the fine work they did in planning a multitude of details. Whether they could have done it all without the tireless assistance of Miss Jeannette Leach, secretary to Dr. H. B. Lambert, we will never know, but she shares the credit with the Committee, and the Society appreciates Dr. Lambert's generosity in providing her invaluable services. The Commercial Exhibit was enthusiastically received and financially gratifying and should, I believe, be continued as a part of our Annual Meeting. The exhibit was directed and arranged by our good friend, Thomas R. Gardiner, Business Manager of the Medical Society of the State of New York, and we hope his other duties will permit him to be with us for many more exhibits.

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It seemed that almost all of the Connecticut Society was at the Atlantic City Meeting. There were more than 200 of our members present with many wives and friends. The Connecticut delegates, Dr. Blumer and Dr. Steiner, were at all of the sessions of the House of Delegates and Dr. Stanley Osborn was, as usual, also a member of the House as delegate from the Section on Public Health. Ex-trustee of the Association, Dr. Chester Brown, was everywhere anything important was happening and Dr. James D. Trask served on the Committee of Awards for the Scientific Exhibit. This exhibit was just too big to comprehend. Connecticut was creditably represented by the exhibit of Dr. Winternitz and his Associates on studies of the blood supply of blood vessels, which won an award, and the unusual exhibit of the State Medical Association Tumor Committee showing statistical studies of cancer in Connecticut. This exhibit was under the direction of Dr. M. H. Griswold and Mr. Herbert Hirsche of the State Department of Health, it was the only State Society exhibit in the Hall and aroused much favorable comment. Dr. Oliver Stringfield of Stamford participated in the exhibit of appendicitis in children arranged by the New York Post-Graduate Hospital and Medical School.

* * * *

The 1938 Convention of the American Medical Association will be held in San Francisco in June, and although it is a long distance from Connecticut, it is likely that some of our members will attend and with that in mind this office has already undertaken plans to provide air, rail, and steamship transportation and hotel reservations. Detailed announcements will be made later.

* * * *

The Secretary wishes to welcome the new officers and looks forward to receiving their guidance and cooperation during the coming year. The regular monthly meeting of the Council on June 23, was attended by the new president, Dr. Charles H. Turkington, who is no new-comer to the Council, having represented Litchfield County for a long time. It was a pleasure to welcome George Gildersleeve who has succeeded Charles Barnum from New London County and Hugh Campbell who is the president-elect. By a happy circumstance, the 1938 meeting of the Society, when Dr. Campbell becomes President, will be held in his own county for the first time in many, many years. The meeting will be at the Hotel Griswold, Groton, on June first and second. Better write the dates down now.

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The announcement of the program of the Society's 13th Clinical Congress is published elsewhere in this issue. The program has again been arranged under the direction of Dr. Louis Nahum.

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The House of Delegates of the Medical Society of the State of New York has voted to accept the suggestion that the New York State Society exchange delegates with the Connecticut State Medical Society, and we look forward to this opportunity to officially confer with our many friends in New York.

It was with great pleasure that the Secretary learned of the appointment of Dr. Peter Irving as a full time Executive Officer of the New York State Society; he and his staff have been generously helpful to us during the period of the reorganization of the administration of our own Society and the best wishes of Connecticut go to Dr. Irving now.

* * * *

Your Secretary had the privilege of participating in a symposium on Prepaid Hospital Service at the annual meeting of the Connecticut State Hospital Association in Danbury early in June, and was a luncheon guest at the annual meeting of the Connecticut Public Health Association a few days later. Dr. A. B. Dayton attended the annual meeting of the Connecticut Pharmaceutical Association as a delegate from this Society. It is pleasing to realize the warm and understanding relationship that exists between these three important organizations and the State Medical Society. Our interests and problems so frequently duplicate and overlap that much good is bound to come from this close and friendly cooperation.

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"YOU BET YOUR LIFE!"

Under this title The Travelers Insurance Company has issued a booklet analyzing America's shameful automobile accident record. Read it! In 1936, some 36,800 lives were lost in such accidents and 967,840 injured. In the period 1922 to 1936 inclusive, 415,977 persons were killed, this total exceeding the total number of soldiers killed in action or died of wounds in all the wars in which our country has participated. The year 1936 shows the highest mortality in the automobile cases, and in 3 out of 5 cases the man behind the wheel has been shown to be directly responsible. In 1936 of all drivers in fatal accidents 7.3 per cent had been drinking. This was an increase of 8 per cent over 1935. Of all drivers in non-fatal accidents 4.3 per cent had been drinking. One out of nine pedestrians killed in 1935 had been under the influence of liquor and 5.3 per cent of all pedestrians injured had been drinking. You would think that the customers would soon be wiped out, but there is a sucker born every minute, sometimes twins.—*Weekly Roster and Med. Digest, May* 22, 1937.

TUBERCULOSIS AND PREGNANCY

With the advent of collapse therapy the old controversy pertaining to the interruption of pregnancy in the presence of tuberculosis assumes renewed importance. There are still three positions maintained as to the active treatment of pregnancy complicated by tuberculosis: first, all pregnancies should be interrupted as a curative measure; second, no pregnancy should be interrupted; third, all cases should be individualized. Previously the recognized treatment of tuberculosis was purely medical, consisting of bed rest, fresh air, and proper food. Now in modern institutions according to H. C. James (Southwestern Medicine, May 1937), about 80% of patients receive some sort of collapse therapy, permitting physiological rest of the diseased area.

The puerperium has always been recognized as the most dangerous phase of pregnancy in the presence of tuberculosis. With a choice of pneumothorax, phrenic nerve interruption, or thoracoplasty, the collapse therapy instituted by the pregnant uterus may and should be re-established within twenty-four hours following delivery and maintained as long as deemed necessary. The writer previously referred to believes pneumothorax or pneumoperitoneum to be the methods of choice. Following out this plan of treatment, pregnancy complicated by tuberculosis does not necessarily hold as unfavorable prognosis as formerly, but, in the opinion of this same writer, might even be looked upon as a help in ultimately curing the tuberculosis.

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DIRECT RADIATION OF BRAIN TUMORS IN OPERATING ROOM

Elsberg, Davidoff and Dyke (Bull. of Neurological Inst. of N. Y., Vol. VI, No. 1, Jan. 1937) report direct radiation in the operating room through the open wound, of eighteen patients with brain tumors without any evidence of harmful effects in the immediate results. Whether or not late vascular or other changes are produced, only the future can reveal. The writers believe the method worthy of trial although they admit that its advantages can be evaluated only after many years of observation of patients.

PREVENTIVE PSYCHIATRY

There is little difference of opinion today among physicians regarding the place of preventive medicine. All agree that to prevent disease is better than cure it; and that a public health program which provides sanitary drinking water, is far superior to the most heroic medical fight to save typhoid victims.

Prevention of mental disease has long been the goal of psychiatrists, but in this particular field there are some obstacles not encountered in other branches of medicine. First of all, there is the legendary shame associated with having "insanity in the family". This makes for concealment, rationalization, covering up and almost anything rather than facing the facts. The facts are faced only when there is such obviously psychotic behavior that the truth cannot be staved off longer.

In the second place, mentally ill people are given the protection of the law to such a remarkable degree, that it is difficult in many cases to provide hospital treatment for them until the disease process is well established.

These are not insurmountable obstacles, however. We believe that the medical profession as a body, provides the best possible conduit for the passage of sound educational material regarding mental illness. It is through their contacts with the families of patients, that much of the archaic and superstitious can be dissipated, and a healthier attitude toward mental illness developed.

With the growing realization by the public, of the need for prompt detection and immediate care in the earlier stages, it is reasonable to assume that medical care will be sought before the appearance of a frank psychosis.

The modern hospital for the care and treatment of mental illness is equipped not only to care for those already suffering from mental illness, but as well, for those incipient cases which are only beginning to manifest preliminary symptoms.

It can be of value to the general practitioner, as well as the specialist when, by early referral, diagnosis is made and a program of preventive treatment inaugurated. By offering its clinical and diagnostic facilities for early preventive work, the hospital thus joins hands with the practising physician in a campaign of preventive psychiatry.

After diagnosis and classification, much of the subsequent treatment can be carried on by the physician in the community. Or, in more advanced cases, where institutional residence is indicated, the physician may follow the progress of his patient in the hospital, and may advise with hospital authorities on the course of treatment, as in other forms of illness.

The Board of Medical Visitors of the Neuro-Psychiatric Institute of the Hartford Retreat subscribes to the principle of preventive medicine in psychiatry, and the early use of the hospital facilities of the State not only for the psychotic and the psycho-neurotic, but for those suffering from personality problems or displaying symptoms of underlying mental stress. We believe that only in this way, can a really effective campaign be waged against mental illness.

BOARD OF MEDICAL VISITORS
The Neuro-Psychiatric Institute
of the Hartford Retreat:

George Blumer, M.D., New Haven,
D. Chester Brown, M.D., Danbury,
B. Austin Cheney, M.D., New Haven,
James D. Gold, M.D., Bridgeport,
Frederick G. Graves, M.D., Waterbury,
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Nathaniel Selleck, M.D., Danbury,
Walter R. Steiner, M.D., Hartford,
Daniel Sullivan, M.D., New London,
Stella H. Netherwood, *Secretary*.

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EFFECT OF PILOCARPINE ON URINARY RETENTION

Dean (Bull. of Neurological Inst. of N. Y., Vol. VI, No. 1, Jan. 1937) reports results in nineteen cases of urinary retention treated with pilocarpine. Of these nineteen, seventeen responded to pilocarpine therapy by micturition, and in fifteen cases catheterization was eliminated. In cases of neurogenic urinary retention, urgency and the accomplishment of micturition were considerably facilitated by the administration of pilocarpine.

Correspondence

STATE MEDICINE AGAIN

Dr. Creighton Barker, *Secretary*,
Connecticut State Medical Society,
258 Church Street,
New Haven, Connecticut.

Dear Dr. Barker:

At a special meeting of the Council of the Medical and Chirurgical Faculty of the State of Maryland held on June 17, 1937, the attention of the Council was called to a speech made at the Atlantic City meeting of the American Medical Association by Senator J. Hamilton Lewis on June 10, 1937.

You, no doubt, saw newspaper accounts of this speech under date of June 11, 1937. There was also an account in the magazine, "Time"— June 21, 1937, page 26 — in which the subject was reviewed at some length.

At the special meeting of the Council of the Medical and Chirurgical Faculty of the State of Maryland, above referred to, the following resolution was unanimously adopted:

"At the Atlantic City meeting of the American Medical Association, June, 1937, Senator J. Hamilton Lewis of Illinois appeared and delivered an address concerning the future relations between the State, the physician and the patient. He stated that as Chairman of a Senate sub-committee he came to the American Medical Association for guidance and advice in certain aspects of his duties. At the conclusion of his talk the House of Delegates referred the matter to the Board of Trustees for consideration and action.

"The Council of the Medical and Chirurgical Faculty of the State of Maryland, being informed of the nature of Senator Lewis's views and the course that he predicts the future medicine will take, herewith expresses its complete antagonism to any such development. Specifically we repudiate the view that the State does, or in the United States of America has any right to, regard the individual as a mere instrument for the execution of its purposes, in peace or war, and to that end may enforce the services of the medical profession to maintain the health of the citizen, without respect to the desires of either patient or physician. Not only is this view of governmental relations and powers a grave threat to the freedom, the quality, and the scientific development of the medical profession; even more important is the fact that it completely subverts the traditional rights of American citizens and is a treasonable betrayal of principles of our democracy. We believe that the Government has no direct concern with the health of the individual. Under its police powers, which assure the individual protection from the acts of others, it is concerned to prevent the spread of contagion and to restrain industrial conditions that are a menace to health and safety. The individual otherwise is free to take such care of his own health as seems best to him. Also, in general the relaton between physician and patient is a personal one beyond the concern of the government. In our view, the State is the servant of the people, not its master.

"Holding these opinions, not merely as abstract theories but as a sacred inheritance from our fathers and a sacred trust to be passed on to our children, we respectfully request the Board of Trustees of the American Medical Association as follows:

"1. That they publicly and emphatically repudiate the relationship of the government to the physician and patient envisaged in Senator Lewis's address;

2. That they publicly and emphatically call to the attention of the people of the United States the danger that threatens their freedom as citizens and individuals;

3. That they refuse, in the name of organized medicine, to have any share or responsibility in the introduction of such a scheme, by giving advice, the suggestion of personnel, or even by tact acquiescence;

4. That on the contrary, they enlist the active and vigorous opposition of the entire medical profession against the scheme, to the extent, if possible, of pledging them to refuse cooperation in any such plan that may be adopted."

Respectfully submitted,
WALTER D. WISE, M.D. *Secretary*

P.S.—I am sure the Council of the Medical and Chirurgical Faculty of the State of Maryland would appreciate an expression of the reaction of your Medical Society to this matter. -Walter D. Wise.

Thirteenth Clinical Congress

of

THE CONNECTICUT STATE MEDICAL SOCIETY

New Haven, September 21, 22, and 23, 1937

Sterling Law Buildings
Sterling Hall of Medicine
and
Brady Memorial Hospital

The registration fee for the 1937 Clinical Congress will be $2.00. Luncheons are not included in this fee.

The method of conducting the Congress last year was so successful that the same plan will be followed this year. The morning sessions will be devoted to addresses by visiting speakers. At the afternoon sessions there will be bedside clinics by the speakers of the morning followed by panel discussions on the subjects that have been presented at the morning sessions. Members of the Congress will have the opportunity to present questions to be considered in these discussions.

The programs for the evening sessions have been arranged by the various sections. These section meetings are open to any member of the Congress.

Where manuscripts are available the papers presented before the Congress will be published in subsequent numbers of the Journal of the Connecticut State Medical Society. In cases where no manuscript is available, abstracts will be published.

The Women's Medical Society of Connecticut will hold its fall luncheon meeting at the time of the Clinical Congress. All medical women will be welcome. Further details will appear in the final program.

Parking of automobiles for members of the Congress will be unrestricted as to time in the vicinity of the meeting place. Continuous telephone service will be maintained. The number at which members can be reached will be announced in the final program.

If you know of anyone not receiving these announcements who you believe would be interested, his name will be placed upon the mailing list upon application to Dr. Maurice J. Strauss, 41 Trumbull Street, New Haven, Conn.

Early registration will facilitate the work of the committee and will also save time for you at the Congress. A registration card is enclosed. If you expect to attend the Congress, please fill out the card and return it with your check for $2.00 payable to the Connecticut Clinical Congress. Names of all who register before August 25th will be published in the final program to be distributed about September 1st.

MAURICE J. STRAUSS, M.D.
Chairman of the Committee on Publicity and Registration
41 Trumbull Street, New Haven, Conn.

. . PROGRAM . .

(*All times given are Daylight Saving Time*)

TUESDAY, SEPTEMBER 21, 1937

Auditorium, Sterling Law Buildings

Dr. Charles H. Turkington, Presiding

9:30 A. M.

The Treatment of Cranial Trauma.

Dr. Francis C. Grant, Professor of Neurosurgery, University of Pennsylvania Medical School, Philadelphia.

Head injuries are increasing due to the speeding up of transportation. Any physician, no matter what his specialty, is certain to encounter these cases. The general principles underlying treatment of head injuries will be discussed together with the methods used in determining the area of the brain involved and the type of injury which the brain has received. Intracranial pressure and its relief will be considered. Suggestions will be made for the handling of cranial traumatic cases during the period following the truma which may help to prevent the sequellae of cranial trauma and return these patients to their previous economic level.

10:15 A. M.

The Treatment of Early Syphilis.

Dr. Joseph E. Moore, Associate in Medicine, The Johns Hopkins University; Physician-in-charge Syphilis Division of the Medical Clinic, The Johns Hopkins Hospital, Baltimore.

Though the adequate treatment of early syphilis is of importance from the standpoints of the individual patient, of the public health, and of the public expense, and though proved adequate treatment methods are available they are not being generally applied.

The reason for this failure lies in part in the biology of syphilitic infection, i.e., in the fact that it is sometimes, perhaps often, symptomless in the early stages; in part in lack of knowledge of the laity of the prevalence, characteristics, and public and individual importance of syphilitic infection; in part in the failure of the medical profession to employ adequate methods of early diagnosis and treatment. Remedies for these three faults are briefly suggested.

The modern treatment of early syphilis is based on five fundamental principles, as follows: (1) Early diagnosis. (2) The use of drugs of proved worth. (3) The use of a continuous treatment system without rest periods. (4) The use of treatment prolonged to an arbitrary minimum of 12 to 18 months. (5) Determination of "cure" by lifelong post-treatment observation.

11:00 A. M.

The Treatment of Burns with a Compound of Anilin Dyes.

Dr. Robert H. Aldrich, Assistant in Surgery, Harvard Medical School; Visiting Surgeon Out-Patient Department, Boston City Hospital; Visiting Surgeon to the Carney Hospital, Boston.

There will be an introductory paragraph or two on the history of the treatment of burns going back to 600 B.C. Tannic acid was used by the Chinese at that time, by Hippocrates, by the Greeks in the 7th century A.D.; in this country in 1895; and was suddenly "discovered" in 1925.

The second part of the talk will be given over to a review of the theories concerning the etiology of the toxemias seen in burned patients. Part 3 will stress the modern treatments as a whole; part 4 will deal with the treatment by a compound of anilin dyes; and part 5 will emphasize such things as diet, mursing care, blood transfusions, and various forms of treatment. There will also be a discussion of the three types of surgical shock that occur in burned patients.

11:45 A. M.

The Place of Caesarian Section.

Dr. Frederick C. Irving, Professor of Obstetrics, Harvard Medical School, Boston.

The frequency of Caesarean Section in the United States is much greater than is justified by the indications. In some communities, the deaths following operation constitute an unduly large proportion of the deaths from all puerperal causes. Statistics from Boston, New York, and Philadelphia bear this out. The mortality in several large series of cases appearing in the literature is given. Improper and unnecessary indications are discussed. An attempt is made to select rational indications. The advantages and disadvantages of the classical and lower segment types of operation are given, and the performance of other operations at the same time of Caesarean Section is decried. The different varieties of extraperitoneal Sections are described and their advantages and disadvantages over the Porro operation are given.

LUNCHEON

Sterling Law Buildings

Bedside Clinics

2:15 to 3:00 P.M.

Case of Major Trigeminal Neuralgia.

Dr. Grant.

Surgical Amphitheater,

Farnam Memorial Building.

2:15 to 3:00 P.M.

Case of Uncomplicated Syphilitic Aortitis.

Dr. Moore.

Auditorium.

Brady Memorial Laboratory.

2:15 to 3:00 P.M.

Case of Extensive Burns.

Dr. Aldrich.

Medical Amphitheater,

Laboratory for Medicine and Pediatrics.

PANEL DISCUSSIONS

3:00 to 4:30 P.M.

Symposum of the Treatment of Cranial Trauma.

Surgical Amphitheater,

Farnam Memorial Building.

Dr. William J. German, Chairman

Dr. Francis C. Grant (by invitation)

Dr. Bernard S. Brody

Dr. Richard C. Buckley
Dr. James C. Fox
Dr. George A. Gosselin
Dr. Daniel P. Griffin
Dr. Arthur J. Jackson
Dr. Otto G. Wiedman

1. The choice of early measures for the relief of increased intracranial pressure:—intravenous hypertonic glucose OR sucrose; early lumbar drainage; dehydration.
2. Early lumbar puncture; its advantages and hazards.
3. The differential diagnosis of a static *versus* a progressive intracranial lesion.
4. Therapeutic methods in patients with spinal fluid leaks.
5. Operative methods in compound cranial injuries.
6. The treatment of depressed fractures of the skull.
7. Therapeutic methods for the control of: (a) hyperactivity; (b) hyperthermia; (c) prolonged unconsciousness.
8. The present status of subtemporal decompression.
9. Prognosis and its relation to the optimum time for compensation settlement.

3:00 to 4:30 P.M.

Symposium on Syphilis.

Auditorium,
Sterling Hall of Medicine.

Through the courtesy of the United States Public Health Service the Committee hopes to be able to show the new talking motion picture on syphilis. If this is not possible there will be a symposium on the Treatment of Early Syphilis.

3:00 to 4:30 P.M.

Symposium on the Treatment of Burns.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

Dr. Paul W. Vestal, Chairman
Dr. Robert H. Aldrich (by invitation)
Dr. Edward H. Kirschbaum
Dr. Francis H. Sutherland.

1. Recent Developments in the Treatment of Burns.
2. Methods used in their local treatment:
 Systemic disorders and their management.
 Complications.
 Subsequent skin grafting and other reconstructive methods.
 Practical demonstrations.

3:00 to 4:30 P.M.

Symposium on Cesarean Section.

Auditorium,
Brady Memorial Laboratory.

Dr. Stanley B. Weld, Chairman
Dr. Frederick C. Irving (by invitation)
Dr. Kerchival R. Holt
Dr. Joseph H. Howard
Dr. Luther K. Musselman
Dr. Emerson L. Stone
Dr. Ralph M. Tovell

1. Choice of anaesthesia.
2. Different types of section.
3. Indications for cesarean section.
4. Groups of patients requiring cesarean section:
 a. Endocrine.
 b. Pelvic contractions and dystocia.
 c. Emergencies.
 I Placenta praevia
 II Abruptio Placentae.
 III Eclanpsia.
 IV Foetal distress with dystocia.
 d. Systemic diseases:
 I Cardiac.
 II T. B.
 III Diabetes.
5. Incidence of cesarean section.
6. Mortality in cesarean section.
7. Test of labor.

SECTION MEETINGS

Open to all those interested

8:15 P.M.

Section on Dermatology and Syphilology.

Dr. E. Myles Standish, Chairman.
Dr. George M. MacKee, New York City.
Precanceroses.
Surgical Amphitheater,
Farnam Memorial Building.

The Connecticut Medical Examiners' Association.

Dr. Henry N. Costello, Chairman.
Auditorium,
Sterling Hall of Medicine.

Connecticut Public Health Association.

Dr. Edward J. Godfrey, Chairman.
Auditorium,
Brady Memorial Laboratory.

WEDNESDAY, SEPTEMBER 22, 1937

Auditorium, Sterling Law Buildings

Dr. Stanhope Bayne-Jones, Presiding

9:30 A.M.

Surgical Diseases of the Extrahepatic Bile Ducts.

Dr. Isidor S. Ravdin, Harrison Professor of Surgery, University of Pennsylvania, Philadelphia.

Diseases of the extrahepatic bile passages comprise the second most frequent cause for abdominal operations by the general surgeon. The incidence of gall stone disease in our population is approximately eight per cent. Which of these patients require surgical treatment? What shall the surgical treatment consist of? What are the dangers of delay in operation? And what are the end-results of satisfactory surgical treatment?

10:15 A.M.

Treatment of Various Types of Anemias.

Dr. William B. Castle, Associate Professor of Medicine, Harvard Medical School, Boston.

The scope and limitations of treatment of anemia by transfusion, splenectomy, therapy with specific substances such as liver extract and iron, and by irradiation and arsenic, with reference to specific varieties of anemia encountered in general practice.

11:00 A.M.

Treatment of the Menopause.

Dr. Emil Novak, Associate Professor of Obstetrics, University of Maryland, School of Medicine, Baltimore.

Clinical aspects of the menopause, with discussion of the common and some uncommon manifestations. Management of these symptoms, with special regard to organotherapy. Latter should be based on what

we know of the endocrinology of the menopause, which is discussed.

11:45 A.M.

Clinical Experience with the use of Radium and X-ray in the Treatment of Cancer.

Dr. Maurice Lenz, Associate Professor of Clinical Radiology, Columbia University; Chief Radiotherapy Department of the Presbyterian Hospital and the Montefiore Hospital, New York City.

This paper describes the practical results of radiotherapy in malignant neoplasms based on their microscopic structure, anatomic location, and extent. The importance to radiotherapy of the radiosensitivity of the neoplasm and the radio-resistance of the surrounding tissues is stressed, and the bearing of radiation technic on this problem is mentioned. The relationship between the general health of the patient and curability by radiotherapy is considered in the light of unavoidable radiation damage accompanying radiotherapy of malignant neoplasms. The possibility of improved clinical results from progress in technical equipment is compared with physiological and clinical limitations of treatment of cancer by irradiation.

LUNCHEON

Sterling Law Buildings

Bedside Clinics

2:15 to 3:00 P.M.

Case of Lesions of the Extrahepatic Bile Ducts.

Dr. Ravdin.
Surgical Amphitheater,
Farnam Memorial Building.

2:15 to 3:00 P.M.

Cases of Cancer of the Head and Neck.

(With photographs before and after treatment illustrating success or failure).

Dr. Lenz.
Auditorium,
Sterling Hall of Medicine.

PANEL DISCUSSIONS

3:00 to 4:30 P.M.

Symposium on Surgical Diseases of the Extrahepatic Bile Ducts.

Surgical Amphitheater,
Farnam Memorial Building.

Dr. Daniel C. Patterson, Chairman
Dr. John S. Dye
Dr. Carl C. Harvey
Dr. Samuel C. Harvey
Dr. Claude C. Kelly
Dr. Anthony J. Mendillo
Dr. John A. McCreery
Dr. Thomas P. Murdock
Dr. H. LeBaron Peters
Dr. Douglas J. Roberts
Dr. William F. Verdi
Dr. Thacher W. Worthen

1. What percentage of biliary tract cases show diseases of the deucts?
2. What are the indications for exploration of the common bile duct?
3. What are the most common anomalies of the common and of the cystic ducts?
4. What information can be obtained from liver function tests in relation to disease of the ducts?
5. What information can be obtained from radiographic examination of the ducts?
6. Obstruction of the common duct will give you what symptoms?
7. What is the mechanism of Courvoisier's Law?
8. What is the association of pancreatitis with common duct disease?
9. What are some of the injuries to which the common duct is exposed?
10. How can injuries to the common duct be avoided?
11. Method of handling complete strictures of the common duct.
12. Procedure in case of cancer of common duct.
13. Congenital occlusions — how treated?
14. Methods of drainage of common duct.
15. Value of dilatation.
16. Pre-operative and post-operative care.
17. Choice of anesthesia.

3:00 to 4:30 P.M.

Symposium on Anemias.

Auditorium,
Brady Memorial Laboratory.

Dr. Francis G. Blake, Chairman
Dr. William B. Castle (by invitation)
Dr. Cornelius P. Rhoads (by invitation)
Dr. Maurice B. Strauss (by invitation)
Dr. Randolph West (by invitation)
Dr. James C. Fox
Dr. John P. Peters

1. What are the indications for the therapeutic use of liver extract?
2. What are the indications for the therapeutic use of iron?
3. Under what circumstances is anemia refractory to treatment?
4. How should the anemias of pregnancy be differentiated and treated?
5. What is the effect of antianemic therapy on combined sclerosis?
6. Are vitamins of value in the treatment of anemia?
7 What are the indications for splenectomy?
8 What is the therapeutic value of transfusion?
9. What is the significance of the unit system of describing the potency of stomach and liver preparations, shortly to be utilized by the United States Pharmacopoeia?

3:00 to 4:30 P.M.

Symposium on Menopause.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

Dr. Emerson L. Stone, Chairman
Dr. Emil Novak (by invitation)
Dr. John M. Freiheit
Dr. Carl E. Johnson
Dr. Robert M. Lewis
Dr. James R. Miller
Dr. Arthur H. Morse
Dr. Henry E. Waterhouse

The material of Dr. Novak's address and other aspects

of endocrinology as applied to gynecological practice will be informally reviewed.

3:00 to 4:30 P.M.

Symposium on Radium and X-ray.

Auditorium,
Sterling Hall of Medicine.

Dr. Douglas J. Roberts, Cuairman
Dr. Maurice Lenz(by invitation)

1. Are any of the new type, extremely high voltage X-ray machines, as well as artificial radio-active salts practical at this time in the treatment of malignant tumors?

Prof. Arthur P. R. Wadlund, Associate Professor of Physics, Trinity College, Hartford Phsyicist to the Hartford Hospital.

2. Is any progress to be noted in the treatment of the so-called blood dyscrasias and malignant lyphomas?

Dr. Ralph T. Ogedn, Associate Radiologist, Hartford Hospital.

3. What practical attitude may a surgeon take toward radiation therapy in the treatment of cancer of the breast?

Dr. Phillip G. McLellan, Assistant Attending Surgeon Hartford Hospital.

4. Are results in the radiation treatment of cancer of the uterus improving?

Dr. Berkeley M. Parmelee, Radiologist, Bridgeport Hospital.

5. How may we improve our results in the treatment of cancer of the buccal cavity?

Dr. Louis F. Wheatley, Radiologist Grace Hospital, New Haven.

6. What errors should be avoided in the treatment of cancers of the face?

Dr. Hugh Wilson, Assistant Professor of Radiology Yale University School of Medicine, Radiologist New Haven Hospital.

SECTION MEETINGS

Open to all those interested

8:15 P.M.

Section on Anesthesia.

Joint Meeting with the American Society of Anesthestists

Dr. Leonard F. DelVecchio, Chairman.
Dr. Henry S. Ruth, Philadelphia.
Problems in Resuscitation.
Dr. Louis Goodman, Yale University.
The Chemical Mediation of Nerve Stimuli.
Dr. Paul M. Wood, New York City.
Modern Anesthesia for Upper Abdominal Surgery.
Dr. Meyer Saklad, Providence.
A Method for the Collection and Analysis of Anesthetic and Surgical Statistics.
Auditorium,
Sterling Hall of Medicine.

Section on Radiology.

Dr. Kenneth K. Kinney, Chairman.
Dr. Bradley L. Coley, New York City.
Diagnosis and Treatment of Bone Tumors.
Surgical Ampitheater,
Farnam Memorial Laboratory.

Hezekiah Beardsley Pediatric Club.

Dr. Howard W. Brayton, Chairman.
Dr. James D. Trask, Associate Professor of Pediatrics, Yale University, New Haven.
Some Laboratory Studies in Poliomyelitis.
Discussion: Dr. John Paul.
Auditorium,
Brady Memorial Laboratory.

THURSDAY, SEPTEMBER 23, 1937

Auditorium, Sterling Law Buildings

Dr. Hugh B. Campbell, Presiding

9:30 A.M.

Treatment of Psychoneutoric Disorders.

Dr. Oskar Diethelm, Psychiatrist-in-chief, The New York Hospital; Professor of Psychiatry, Cornell University Medical College, New York.

Personality reactions frequently complicate physical illnesses or may be the principal disorder with which the practitioner has to deal. The physical aspects as well as the individual personality are considered in treatment. Methods of investigating the personality factors and some of the psychotherapeutic procedures are tools with which every physician needs to be well acquainted. The discussion will outline the practical therapeutic possibilities.

10:15 A.M.

Fracture Deformity of the Upper Extremities — Wrist and Forearm.

Dr. Arthur Steindler, Professor of Orthopedics, State University of Iowa, Iowa City.

11:00 A.M.

The Treatment of Coronary Sclerosis and Angina Pectoris by grafting a new blood supply to the heart.

Dr. Claude S. Beck, Assistant Professor of Surgery, Western Reserve University, School of Medicine; Associate Surgeon, University Hospitals, Cleveland.

Presentation of experimental data illustrating the establishment of an arterial blood supply to the heart. Presentation of our experience in treating patients with coronary artery disease by grafting tissue onto the heart.

11:45 A.M.

Some Problems in relation to Bright's Disease.

Dr. Warfield T. Longcope, Professor of Medicine, Johns Hopkins University School of Medicine; Physician-in-chief, Johns Hopkins Hospital, Baltimore.

Short consideration of the forms of Bright's disease, with a discussion of the etiology of the inflammatory and degenerative forms of nephritis. Observations upon certain factors that appear to influence the course and therefore the prognosis of the disease, and comments upon treatment.

LUNCHEON

Sterling Law Buildings

Bedside Clinics

2:15 to 3:00 P.M.

Case of Compressed Heart.

A 16 mm. motion picture showing treatment of cardial compression.
Dr. Beck.
Auditorium,
Sterling Hall of Medicine.

2:15 to 3:00 P.M.

Case of Acute Nephritis.

Dr. Longcope.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

2:15 to 3:00 P.M.

Case of Low Back Pain.

Dr. Steindler.
Surgical Amphitheater,
Farnam Memorial Building.

PANEL DISCUSSIONS

3:00 to 4:30 P.M.

Symposium on Psychoneurotic Disorders.

Medical Amphitheater,
Laboratory for Medicine and Pediatrics.

Dr. Eugen Kahn, Chairman
Dr. Oskar Diethelm (by invitation)
Dr. Edwin F. Gildea
Dr. George K. Pratt
Dr. Paul W. Preu
Dr. Marian C. Putnam
Dr. William B. Terhune

1. Physiological background of anxiety.
2. Behavior and experience in anxiety conditions.
3. Treatment of anxiety conditions.
 a. Physiology of anxiety with remarks on anxiety behavior and anxiety experience.
 b. The importance of the formal case study for diagnosis and treatment of anxiety conditions.
 c. The direct treatment of anxiety conditions.
 d. Psychoanalytic aspects of anxiety (the role of old and new experiences in anxiety).
 e. Community aspects of anxiety conditions.
 f. Supplementary remarks on the "Treatment of Anxiety".

3:00 to 4:30 P.M.

Symposium on Fracture Deformity.

Surgical Amphitheater,
Farnam Memorial Building.

Dr. Robert J. Cook, Chairman
Dr. Alexander L. Bassin
Dr. Arthur S. Griswold
Dr. Carl Henze
Dr. Merrill K. Lindsay
Dr. Thomas J. Luby
Dr. James L. Moriarity
Dr. Dennis O'Connor
Dr. Maurice M. Pike
Dr. Grover C. Sweet
Dr. Robert M. Yergason

Discussion of Diagnosis and Therapy of Fractures of the Upper Extremity at or below the Elbow with evaluation of the ultimate result.

Splints Approved by Connecticut Fracture Committee.
Dr. Yergason.

3:00 to 4:30 P.M.

Symposium on Coronary Artery Disease.

Auditorium,
Sterling Hall of Medicine.

Dr. Louis H. Nahum, Chairman
Dr. Claude S. Beck (by invitation)
Dr. Arthur M. Master (by invitation)
Mr. Leo J. Noonan (by invitation
Dr. Robert M. Thomas (by invitation)
Dr. John H. Foster
Dr. Charles W. Gardner
Dr. Samuel J. Goldberg
Dr. Benedict R. Harris
Dr. Hebbel E. Hoff
Dr. Harold M. Marvin

1. Are the coronary arteries affected by degenerative processes more frequently than other arteries?
2. Is there an explanation for the greater incidence in men?
3. What is the incidence of thrombosis in sclerosed coronary arteries?
4. Mechanism of Thrombus formation.
5. What is the mechanism of collateral circulation in Heart? Does it increase with age?
6. What is the relation of exercise to the development of coronary thrombosis?
7. What is the influence of activity immediately after thrombosis upon the extent of cardiac damage?
8. Does this knowledge suggest a method of treatment in the acute phase?
9. What is the mechanism of sudden death from coronary disease?
10. Does the size of the infarct play a part in prognosis?
11. Are there physical signs which roughly indicate the extent of infarction?
12. What is the place of the electrocardiogram in coronary disease?
13. What is the usual length of time that it takes for an infarct in the heart to heal?
14. What are some of the factors in a patient at rest that affect the work of the heart?
15. What is the indication for use of drugs such as nitrites, morphine, caffeine, digitalis, coramine, quinidine?
 a. In Angina Pectoris.
 b. In Coronary Thrombosis.
16. Is there a place for exercise and massage in a patient convalescing from Angina and Coronary Thrombosis?
17. What shall we do with heavy smokers suffering from coronary disease?
18. How does alcohol affect the course of coronary disease?
19. What are the criteria that must be satisfied from the medico-legal standpoint to conclude that an occupational accident caused thrombosis?
20. What can a patient with coronary disease do to prevent coronary thrombosis?
21. What other diseases are often mistaken for coronary thrombosis?
22. Prognosis in general.

3:00 to 4:30 P.M.

Symposium on Bright's Disease.

Auditorium,
Brady Memorial Laboratory.

Dr. Milton C. Winternitz, Chairman
Dr. Daniel C. Darrow
Dr. John R. Paul
Dr. Grover F. Powers
Dr. Clarence L. Robbins

Discussion of the etiology and diagnosis of renal disease with particular reference to therapy both symptomatic and curative. Prognosis will be included.

SECTION MEETING
Open to all those interested
8:15 P.M.
Section on Orthopedic Surgery.
Dr. Merrill K. Lindsay, Chairman.
Dr. Arthur Steindler, Iowa City
The State Program for Crippled Children under the Social Security Act.
Auditorium,
Sterling Hall of Medicine.

THIRTEENTH CLINICAL CONGRESS
September 21, 22, 23, 1937
The Connecticut State Medical Society

Officers

Stanhope Bayne-Jones, *Chairman*
Herbert Thoms, *Secretary*
Charles E. Sanford, *Treasurer*
Charles H. Turkington, *President of the Society*
J. Douglas Gold, *Chairman of the Council*
Creighton Barker, *Administrative Secretary of the Society*
Stanley B. Weld, *Secretary on Scientific Work*

Fairfield County	R. Harold Lockhart
Hartford County	Frank T. Oberg
Litchfield County	W. Bradford Walker
Middlesex County	Walter N. Nelson
New Haven County	Ralph E. McDonnell
New London County	Carl H. Wies
Tolland County	Francis H. Burke
Windham County	Cecil R. Garcin

PROGRAM COMMITTEE

Louis H. Nahum, *Chairman*
Paul W. Vestal, *Vice-Chairman*
Stanhope Bayne-Jones, *ex-officio*
Herbert Thoms, *ex-officio*

Francis G. Blake	James R. Miller
John D. Booth	Karl T. Phillips
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Louis O. Labella	Harold W. Wellington
Daniel F. Gray, R. I.	Deering G. Smith, N. H.
Arthur L. Kinne, Mass.	Elihu S. Wing, R. I.

CHAIRMAN'S ADVISORY COMMITTEE

D. Chester Brown — Milton C. Winternitz
J. Douglas Gold

COMMITTEE ON ARRANGEMENTS

John H. Bumstead, *Chairman* — Lewis C. Foster
Ralph W. Nichols, *Vice-Chairman* — John C. Mendillo

COMMITTEE ON PUBLICITY AND REGISTRATION

Maurice J. Strauss, *Chairman*
Theodore S. Evans

- NEWS -
from County Associations

Fairfield

A campaign to raise $325,000. for the expansion and modernization of facilities at Danbury Hospital, Danbury, has been announced for August of this year. The construction of a three story wing to house the administrative offices, the radiological and laboratories departments, and the operating rooms, will permit remodeling of the rooms occupied at the present time by these units, into accommodations for fifty additional patients. The plans also include the erection of a separate building for the power plant and laundry. Danbury Hospital has been seriously overcrowded for the last year and the current program is obviously needed to meet demands which over-match the Hospital's present capacity.

Summer medical meetings, in conjunction with a dinner and golf tournament, have proved so popular with the members of the Danbury Medical Society, that it has been decided to hold similar meetings this Summer. The first meeting was arranged by the Society's President, Doctor Samuel Mullins, and was held on Thursday, June 24th, at the Ridgewood Country Club, Danbury. the speaker at this meeting was Doctor David Barrows, Gynecologist from New York City. The title of Doctor Barrow's paper was "Gynecological Conditions and Their Relationship to Arthritis." This talk was well illustrated by lantern slides.

At the annual meeting of the Bridgeport Medical Society, the following list of officers were elected for the year 1937:

Dr. Carl Gade, *President.*
Dr. Thomas Roche, *President-elect.*
Dr. Virgil P. Calvin, *Vice-President.*
Dr. Ellwood C. Weise, *Secretary.*
Dr. Daniel P. Keegan, *Treasurer.*

Need for an addition to Bridgeport Hospital was stressed at a joint meeting of the directors and doctors who are members of the efficiency committee of the institution, by Supt. Oliver H. Bartine.

He called attention to the growth in the average daily census of the hospital from 288 to 319 patients since 1932. Two $10,000 bequests have been received by the hospital it was announced. One bequest of $10,000 was made under the will of the late Alice E. Godfrey and established a free hospital bed in memory of her late husband, Dr. Charles C. Godfrey. The other was under the will of the late Marie Soules, one half of which is to be used for the free care of inmates of the Bridgeport Protestant Orphan Asylum, and the rest to be applied to the fund for the benefit of the child ward of the hospital.

Hartford

The award for building of the Bradley Memorial Hospital in Southington has been given to H. Wales Lines Company of Meriden. Construction should start about July 1. The total cost of the building, including mechanical equipment will be about $115,000.

Facilities of the new building, the first of its kind in Connecticut will be given over for the most part to preventive medicine. Part of the basement and the entire first floor of the two-story L-shaped building will be used for a clinical public health service. The top floor will be used exclusively for emergency hospitalization and will contain a complete modern operating suite and an hospital outfit of 8 to 10 beds. The lower floor will have space for an ambulance and other vehicles, boiler room, accident and special treatment rooms, storage, kitchen and quarters for the janitor and his wife. On this same floor will be a venereal disease clinic.

Funds for the institution were left by Mrs. Julia A. Bradley who died February 21, 1919. The will calls for the building of an hospital within 21 years.

For the period from October 1, 1936 through April 30, 1937 both Hartford and St. Francis Hospitals have shown a steady increase in admission figures. The admissions to Hartford Hospital for this period amounted to 9,600, an increase of 1052 over the same period the previous year. St. Francis Hospital recorded 4,162 admissions, an increase of 520.

Health Officer of Bristol, Dr. Benjamin B. Robbins has recommended an isolation hospital for that city. The executive board of the Bristol Hospital has appointed a special committee of three to consider the advisability of building such an hospital adjacent to the present one.

The Medical Information Bureau has recently circularized the members of the county and city societies which it represents with copies of UNCLE SAM, M.D., by Paul A. Williams. It is an expose of compulsory health insurance reprinted from the May 1937, Nations Business for Public Relations Bureau, Medical Society of the State of New York. To one who may doubt the inadvisability of compulsory health insurance in the United States this reprint leaves little to be said. The two cartoons alone suffice to produce the nausea of the early stages of medico-political expectancy.

The Bureau is formulating a list of members with their specialty, if any, indicated for the convenience of the office secretary in answering calls requesting a physician in an emergency or advice as to physicians are available for a prospective patient. Return cards furnishing details about each physician have been sent to all members. This should add a real service under proper control.

The State Dental Association held its 73rd annual meeting in Hartford May 12-14. Dr. Sigmund S. Greenbaum, professor of clinical dermatology and syphilology at the University of Pennsylvania Graduate School of Medicine, pictured the dentist as a collaborator with the physician in the diagnosis of disease. He pointed out that systemic diseases may often be discovered through disorders of the mouth.

The Connecticut State Medical Association was represented at the annual meeting by Dr. Ralph A. Richardson of Bristol and Dr. Stanley B. Weld of Hartford. Dr. Richardson emphasized a closer personal cooperation between dentist and physician in the treatment of patients. Dr. Weld called the attention of the Dental Association to the impending federal health insurance bill and outlined briefly the recently formed Medical Information Bureau of the Hartford Medical Society and the Hartford County Medical Association.

Dr. James H. Biram of Hartford has been elected president of the Amherst Alumni Association of Connecticut.

St. Francis Hospital has received a bequest of $5,000 from the estate of the late John J. Brady, president of the Brady Bottling Co., of Hartford. Only a short time ago Mr. Brady gave St.

Francis Hospital $10,000 toward a fund for a new children's building.

Litchfield

Litchfield County has been the scene of Refresher Courses in Obstetrics, following those given in Windham County.

Middlesex

Dr. Roy L. Leak, Superintendent of the State Hospital at Middletown has appointed Dr. Harold Binder of Boston and Dr. George Wadsworth of California to fill two vacancies in that hospital caused by the resignation of Drs. Victor Farland and George Daly. Dr. Farland has begun practice in Hartford and Dr. Daly in Providence, R. I.

New Haven

Dr. Harvey Cushing, Sterling professor of neurology in Yale University School of Medicine, has resigned at the age of 68 to take effect in June. He will continue his association with the University as director of studies in medical history and will retain the rank of professor.

New London

A new X-ray machine which sees around bones and takes accurate cross-sections of any tissue of the body at any depth was recently demonstrated for the first time to members of the American College of Physicians at their annual congress in St. Louis. Dr. Sherwood Moore of the Edward Mallinckrodt Institute of Radiology of Barnes Hospital stated that this machine makes possible what has hitherto been impossible since pictures can be made of a layer of tissue to an accuracy of one centimeter.

This machine was invented by Jean Kieffer, superintendent of the Mechanical Laboratories of the Connecticut State Tuberculosis Hospital at Norwich. It was conceived by him while he was ill with tuberculosis involving the sternum.

In operation, the improved X-ray tube is mounted above a table at the top end of a vertical shaft. A holder containing the X-ray film is attached under the table to the lower end of the shaft. A motor drive on the vertical shaft moves the tube and film in opposite directions to each other. These movements of the tube and film apparently have a directive action on the beams of the X-rays passing between the two and also a selective action which makes possible the "picture slices", Dr. Moore said. The depth at which a cross-section is to be taken is determined bub a simple adjustment of the height of the tube and its motion.

Extensive clinical applications of the machine are planned, but thus far it has been used solely to perfect its accuracy and to make test pictures of the body and of inanimate objects.

Windham

In keeping with the fact that the general need for more educational work with expectant mothers has been acknowledged for some years, a program was started six months ago by the Bureau of Child Hygiene of the State Department of Health in cooperation with the Windham County Medical Society to provide an educational health service for young women, and to stimulate a demand for adequate medical care. Plans for this program were drawn up a year ago. After the program had been discussed with the doctors of the county, a survey was made by public health nurses from the State Department of Health — specially assigned to this project — to determine the medical care received by women who were delivered during March, April, May and June, 1936. Since the number of cases was small, too much significance should not be attached to the statistical conclusions. However, it may be definitely stated that the health services in the county can be designated as inadequate and unevenly distributed — so unevenly, in fact, that although adequate care was easily available to some communities, there were many who had relatively no medical supervision. The figures showed that nine per cent of the women had had no medical care whatever until the onset of labor. The need for education in regard to dental care during pregnancy is evident from the fact that even among the women of the very highest economic level, only one-fourth took the trouble to consult a dentist. The doctors of the county particularly interested in the program have attended meetings to discuss problems connected with medical care of pregnant women. These discussions were led by various obstetricians of Connecticut. Many times obstetrical films, which are available through the State Department of Health for any medical group in the state, were used to illustrate the subject.

MEETING OF FRACTURE COMMITTEE

At the State meeting of the Fracture Committee, April 22, a simple set of three standard splints with three accessories in a canvas bag, procurable from Mr. Richard H. Turner, 187 Broad Street, Hartford, for $10, was authorized for use in hospitals, ambulances, roadside stations of the American Red Cross, etc. Even some surgeons treating numerous fractures wish to carry this set of splints in their cars at all times. It seems very practical to have uniformity in these emergency splints so that an exchange system may be established. Also, their inexpensiveness makes them available to all.

The Fracture Committee voted to have the hospitals and ambulances throughout the State notified, and be requested to equip themselves with these splints, which has been done. Thru the courtesy of Michael A. Connor, Commissioner of Motor Vehicles, considerable publicity has been given this matter, and the Commissioner has prepared an excellent folder, which has been sent out by his Department to all hospitals, privately owned ambulances, and chiefs of police in the State. Copies of this folder can be procured from the Motor Vehicle Department upon request.

An educational campaign is going forward so that those who have the splints may be instructed in their use. It is very essential that all members of the Fracture Committee familiarize themselves with these splints. They will be demonstrated at the Connecticut Clinical Congress, September 23, at 4:30 P.M., following Dr. Steindler's address.

R. M. YERGASON, M.D.
Secretary

Clifton Springs Sanitarium recently announced the appointment to its staff of Dr. J. A. Kindwall, for over six years on the staff of Bloomingdale Hospital, N. Y. Dr. Kindwall's special field will be the care of those patients whose problems call for an emphasis on psychotherapy. The Sanitarium since July 1936, in addition to Dr. Kindwall, has appointed to its staff Dr. Marbin L. Latimer, Dr. George Wright, Dr. B. H. Koop, and Dr. Ellis H. Hudson.

PUBLICATIONS BY MEMBERS OF THE SOCIETY

Daniel Webster and The Hay-Fever
Creighton Barker, M.D., New Haven

The May 1937 issue of The Yale Journal of Biology and Medicine contains an interesting and entirely unique account of this "vigorous young Congressman from New Hampshire", famous for his part in the case of Dartmouth College vs. Woodward. The picture of Webster suffering annually from contact with rag weed adds another commentary to the lack of knowledge of the unexplored field of pollen allergy as it existed in the middle of the nineteenth century.

NEWER ASPECTS OF PELVIMETRY
Herbert Thoms, M.D., New Haven

In the American of Surgery, February 1937, Dr. Thoms presents a working classification of female pelvic variations for the obstetrician and again emphasizes the importance of roentgenometry of the pelvis.

PELVIC VARIATIONS IN 300 PRIMIPAROUS WOMEN
Herbert Thoms, M.D., New Haven

Surgery, Gynecology and Obstetrics for March 1937 contains a clinical study and proposed classification of female pelves by Dr. Thoms, with due consideration given to variations in pelvic architecture.

LATERAL ROENTGENOMETRY OF THE PELVIS — A NEWLY MODIFIED TECHNIC
Herbert Thoms, M.D., New Haven

This article appeared in The Yale Journal of Biology and Medicine, March 1937. It presents the value of lateral roentgenorgams of the pelvis in obstetrics and describes a newly modified technic for obtaining the same.

HUGH LENOX HODGE
Herbert Thoms, M.D., New Haven

To this writer again we are indebted for a delightful glimpse of one of the foremost early teachers of obstetrics in this country. Dr. Thoms visits with the leaders in obstetrics and gynecology are classics in themselves and merit the perusal of all thoughtful physicians. The May 1937 issue of The American Journal of Obstetrics and Gynecology carries this article on Dr. Hodge.

The Editor would appreciate being informed of the publication of papers in other Journals by members of our Society. It is the policy of the Journal to publish abstracts of papers by members and abstracts from foreign Journals not appearing in other publications.

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COMING MEETINGS

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 21-23.

International Inaugural Assembly of Surgeons, Geneva, Switzerland, August 25-27.

National Medical Association, St. Louis, August 15-20.

Omaha Mid-West Clinical Society, Omaha, Neb., Oct. 17-22.

Southern Medical Association, New Orleans, La., Nov. 30-Dec. 3.

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COMING EXAMINATIONS

National Board of Medical Examiners: Parts 1 and 2. Sept. 13-15. Ex. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia, Pa.

American Board of Internal Medicine: Written examination will be held in different centers of the United States and Canada Oct. 18. Chairman, Dr. Walter L. Bierring, 406 Sixth Ave., Des Moines, Iowa.

American Board of Obstetrics and Gynecology: Group B. Written examination will be held at various cities throughout the United States and Canada Nov. 6. Case histories must be submitted at this time. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh, Pa.

American Board of Ophthalmology: Chicago, Oct. 9. All applications and case reports, in duplicate, must be filed at least sixty days before the date of the examination. Sec., Dr. John Green, 3720 Washington Blvd., St. Louis, Mo.

American Board of Orthopaedic Surgery: Los Angeles, Jan. 14-15. Sec., Dr. Fremont A. Chandler, 6 N. Michigan Ave., Chicago, Ill.

American Board of Pediatrics: Los Angeles, Nov. 14. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Surgery: Part 1 (written), Sept. 20. Sec., Dr. J. Steward Rodman, 225 S. 15th St., Philadelphia, Pa.

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TREATMENT OF DYSMENORRHEA

C. D. Hoffman, M.D., Orlando, Florida, in the Journal of the Florida Medical Association, May 1937, reports a case of severe dysmenorrhea treated successfully with intraspinal injection of seven per cent solution of alcohol in distilled water. The technique used was the same as has been followed in alcohol injection for pain associated with pelvic carcinoma.

• OBITUARIES •

EDWIN PARKER SANBORN, M.D.
1876 - 1935

Doctor Edwin Parker Sanborn died suddenly at his home in Bristol, Connecticut, on the morning of May 21, 1935, of cardio-renal disease.

Doctor Sanborn was born in Ashland, New Hampshire, June 28, 1876, the son of Fred Dexter and Cynthia (Cox) Sanborn. The Sanborn family was of English descent, came to this country twelve years after the coming of the Pilgrims and settled in Hampton, New Hampshire, where the State has preserved the old homestead.

Doctor Sanborn's childhood was spent in Ashland, New Hampshire. In 1897 he graduated from Tilton Seminary, Tilton, New Hampshire. His medical schooling was received at Rush Medical College in Chicago, Tufts College of Boston and the Boston University. He graduated from the latter college in 1905. He served an internship of fourteen months in the Grace Hospital, New Haven, Connecticut.

During his internship he courted, and on July 11, 1907, married Florence Salmon, daughter of Henry and Sophia (Hewlitt) Salmon of Toronto, Canada. At that time Mrs. Sanborn was engaged as superintendent of the Prospect Heights and Brooklyn Maternity Hospital, Brooklyn, New York.

In the fall of 1906 Doctor Sanborn located in Bristol, Connecticut, where he began the practice of medicine. Before very long he enjoyed a large family practice and had won the confidence of the Bristol people, both as a physician and as a citizen.

At the outbreak of the war his inherent sense of duty caused him to enlist. He entered the service December 7, 1917, and was sent overseas almost at once. He saw active service at St. Mihiel, the Argonne and the Meuse. For some time he was stationed at Evacuation Hospital No. 6 with the First Army Corps.

Shortly after his return to Bristol, Doctor Sanborn accepted the position as company physician at the New Departure Manufacturing

Company where he was responsible for the establishment of an excellently equipped industrial hospital. He held this position at the time of his death.

Doctor Sanborn was a member of the various Masonic bodies, including the Shriners.

During the past five years Doctor Sanborn, together with his wife, did a great deal of splendid work in alleviating distress among the poor families of Bristol. This work was done quietly, efficiently, and certainly without a single thought of public acclaim.

In the passing of Doctor Sanborn the city of Bristol has lost a valued citizen and the medical profession a good and loyal friend.

Peter A. Nestos, M.D.

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BENJAMIN EARLE BOSTWICK, M.D.
1867 - 1935

Doctor Bostwick was born in New York City, June 8th, 1867, the son of Cyrus B. and Sarah J. (Riblet) Bostwick, the former being a native of New Milford and the latter of New York. He studied medicine in Long Island College Hospital and after his graduation began practicing in Brooklyn. Later he went to Bridgeport for a short time, and then to Bridgewater. He came to New Milford from Bridgewater about forty years previous to his death and became one of the successful medical practitioners here. Not the least pronounced of his characteristics was his good nature and friendliness, characteristics which seemed to fit well into his life work in the medical profession.

He was a member of the Board of Directors of the New Milford Savings Bank for about fifteen years and was recently elected Vice-President of the Board. He was a member of the Litchfield County Medical Association and to my recollection was at one time President of the Association. For many years he was active in Masonic circles, was Past Master of St. Peters Lodge, No. 21, F. & A. M., and had gone into the higher branches of the craft. He was also an active member of the Race Brook Country Club on the outskirts of New Haven, and at the time of his death was keenly interested in golf.

On October 11th, 1899, Doctor Bostwick married Miss Clara N. Nelson, daughter of Thomas A. and Clara (Hubbell) Nelson of an old Ansonia family. Her sudden death in September, 1932, was also a shock to the community.

Doctor Bostwick's death occurred the 26th of May 1935. The community and the medical profession suffer a distinct loss.

He is survived by a brother, Cyrus B. Bostwick of Cato, New York, and three sisters, Mrs. Henry Wallace of New York City, and Mrs. Alfred Moment and Miss Bostwick of Princeton, New Jersey.

George E. Staub, M.D.

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JOHN MURRAY JOHNSON, M.D.
1874 - 1935

It is my sad duty to report the death of Doctor J.Murray Johnson of Bridgeport, which occurred in this city on July 2nd, 1935.

Doctor Johnson succumbed to a cardiac attack at the age of sixty years. To us in particular, and to the community in general, his death was a great shock. His position in the profession was an assured one. His ability and seriousness were known to all who worked with him.

He was a native of Bridgeport and after graduating from Long Island Medical College, he interned at Bellevue Hospital. Later he was connected with the Polyclinic. In 1901 he established himself in Bridgeport and became associated with Saint Vincent's Hospital. He was a member of the Fairfield County Medical Association and was President of that organization during 1934-35. He was twice President of the Bridgeport Medical Society and was their Secretary for fifteen years. He was also a member of the American Medical Association. In October 1921, he was made a Fellow of the American College of Surgeons.

Doctor Johnson gave his services to the city of Bridgeport as a member of the Board of Education and of the Board of Governors of the Welfare Building.

In 1905 he married Mary Sheahan of this city. His married life was an inspiration and ideal in every respect. Doctor Johnson was greatly admired by his colleagues and always was held in the highest esteem. His passing is regretted not only by the members of his profession, but by all with whom he came in contact during his long and useful career.

Daniel T. Banks, M.D.

BERNARD FRANCIS DORGAN, M.D.
1901 - 1935

Bernard Francis Dorgan was born in Middletown, Connecticut, on October 26, 1901. He was one of twin sons born to Joseph M. and Ellen Smith Dorgan. The Dorgan family moved to New Haven in 1915. Doctor Dorgan received his Bachelor of Science degree in 1923 and his doctor of Medicine from Yale University in 1926. He interned at St. Francis Hospital in Hartford, and started in general practice at 326 Whalley Avenue, New Haven, upon the completion of his internship there.

"Bernie" was a devotee of wireless in the days before radio and had one of the first transmitting sets in New Haven. This continued to be his hobby after radio and short wave were added.

Doctor Dorgan was one of the City Physicians of New Haven and will be long remembered by the relief charges to whom he gave his best. He will be affectionately remembered by the younger group of New Haven physicians as a man you could always count on at any hour, day or night, to help one out. A daily visitor to St. Raphael's Hospital, he could be seen making ward rounds with Doctor William F. Verdi and watching him in the operating room. The 1919 Class Book of New Haven High School carried this caption over his picture —"Command the assistance of a faithful friend". We can be sure that he lived up to that slogan.

Reticent and retiring by nature, when illness came to him, he hesitated too long before calling the surgeon he so admired. A ruptured appendix, general peritonitis, with the handicap of kidneys damaged by scarlet fever in childhood, combined to end the medical career of a young man whose normal span of life should have entitled him to many more years.

Doctor Dorgan died on December 5, 1935. His funeral from St. Brendan's Roman Catholic Church was largely attended by members of the medical profession.

Doctor Dorgan was a member of San Salvador Council, No. 1, Knights of Columbus; a charter member of Gamma Sigma Chapter of Phi Chi Medical Fraternity; Catholic Graduate Club of New Haven; the New Haven, New Haven County, and Connecticut State Medical Societies, and a Fellow of the American Medical Association.

Besides his parents, Doctor Dorgan is survived by his twin brother, Vincent Joseph Dorgan, a certified public accountant in New Haven.

Francis L. Shay, M.D.

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EDWARD LYMAN KINGMAN, M.D.
1871 - 1936

Edward Lyman Kingman was born in Warren, Conn., October 4, 1871, the son of Orlando P. and Eunice (Lyman) Kingman. He was a great grand-son of Dr. Norman Lyman, Yale M.D., 1833. His boyhood was spent in Bridgeport where he attended the public schools and the Park Avenue Institute, later entering the Medical School of Yale University, from which he was graduated in 1894. On August 30 of that year he married Emma Fletcher Coburn in New York City who survives him.

Dr. Kingman then interned at the City Hospital, Ward's Island, N. Y., and in 1895 and 1896 was employed as surgeon for the Panama R. R. Steamship Line. From 1897 to 1904 he was employed as surgeon and medical officer with the South American Development Co., stationed at Zeruma, Ecuador. To more thoroughly prepare himself for private practice in Ecuador, which became his aim and ambition, Dr. Kingman did graduate study in Dental Surgery at the University of Pennsylvania in 1902, and in 1904 he studied tropical medicine in London, England. This was followed by two years of intensive study at Universidad Central de Quito, Ecuador, from which university he was graduated in 1906 with the degree of Doctor of Medicine. He then returned to Zeruma where for the next twelve years he engaged in private practice, conducting his own small private hospital and doing much work with tropical diseases in which he always held a keen interest, and was well informed.

In 1918, Dr. Kingman returned to the United States and took six months of graduate study at the New York Post-Graduate Medical School and Hospital. This was followed by seventeen years of private practice in Newtown, where since 1926 he had served as Health Officer and Medical Examiner. He was President of the Fairfield County Medical Society from April 1935 until his death and had long been a member of the American Medical Association, the Connecticut State Medical Society and the American Public Health Association.

Dr. Kingman became ill in September, 1935, and had a gall-stone operation which revealed a a very serious condition from which, however, he partially recovered. Late in December he entered the New Haven Hospital where he underwent a second operaton. He died the following day, January 1, 1936, death being due to peritonitis and a cerebral embolism.

Dr. Kingman was a friendly, conscientious physician who constantly practiced his medicine, to which he was especially devoted, and performed his duties, civic and social, to the very best of his ability. His patients and his fellow physicians sincerely miss him, yet we know that to him must have come the realization, as illness removed him from active work, that his was a life well spent.

"For when the One Great Scorer comes
To write against your name,
He writes not that you won or lost,—
But how you played the game."

Waldo Fairfield Desmond, M.D.

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JOSEPH ANTHONY COOKE, M.D.
1866 - 1936

"Life's race well run,
Life's work well done,
"Life's victory won,
Now cometh rest."

—Parker

In the passing of Doctor Joseph Anthony Cooke on January 22, 1936, at his home in Meriden, the community lost a foremost citizen and well beloved physician. His gentlemanly bearing, lovable nature and deep interest in all with whom he came in contact won for him the love and respect of those who knew him.

"Blessed is the man who has the gift of making friends. It involves many things, but above all, the power of going out of one's self and seeing and approaching whatever is noble in another man." Doctor Cooke exemplified these qualities and numbered among his friends many in all walks of life. His death leaves a vacancy in the hearts of those friends and in those homes in which he practiced.

He was born in New Haven, Connecticut, February 11, 1866. He obtained his early education in that city and was graduated from the Medical Department of Yale University in 1897. After serving an interneship in St. Francis Hospital, New York, he opened an office in New Haven where he remained about a year. In 1899 he moved to Meriden and in a very short time he enjoyed a large and extensive practice.

Doctor Cooke was a member of the City, County and State Medical Societies and a Fellow of the American Medical Association. For many years he served on the Staff of the Meriden Hospital, and recently he had been an emeritus member.

As a citizen Doctor Cooke commanded the respect and esteem of his fellow townsmen and his great popularity was evidenced by his success in the political field. In 1915 he was elected Mayor of the City of Meriden and served honorably in this capacity. For a period of eighteen years, he commendably performed the duties of City Health Officer, which position he held at the time of his death.

Fraternally, he was a member of the Elks, Eagles, Foresters and Knights of Columbus. He was a communicant of St. Joseph's Roman Catholic Church.

While his vocation was the practice of medicine, his avocation brought him to the golf course where he enjoyed many hours of helpful relaxation.

On August 6, 1903, Doctor Cooke married Miss Susan Josephine Stanford of New Haven. Of this union three children were born: two sons, Carroll of Detroit, Michigan, and Stanford of Providence, Rhode Island, and a daughter, Grace, a student at the College of the Sacred Heart, Manhattanville, New York.

Death came to him as he wished. While he was still actively engaged in his life's work, he suffered a cerebral hemorrhage, resulting in coma, from which he never recovered. In his death his family has lost a devoted husband and father, the medical profession a loyal friend, and his many patients a sincere and sympathetic physician. His cordial greeting, friendly smile and charming good humor will be missed while his wise counsel and helpfulness to the new members of his profession will ever be a source of inspiration to those who had the privilege of being associated with him in the practice of medicine. His memory will linger with us!

Requiescat in pace.

Raymond V. Quinlan, M.D.

CHARLES HARRIS PERKINS, M.D.

1864 - 1936

Doctor Charles Harris Perkins, the son of Doctor W. S. C. and Amelia Jerome Perkins, was born in Montville on July 2, 1864. He attended the school in his native town, later entered and was graduated from the Norwich Free Academy, took up the study of medicine and graduated in 1891 from the College of Physicians and Surgeons of New York. He did special work on the eye in New York and later located in Norwich and became identified with Doctor Anthony Peck, an eye specialist in the City of Norwich. Socially he was a member of the Arcanum Club. He died of pneumonia on February 26, 1936, in Westerly where he was visiting at the time he was stricken with the fatal disease.

Being the son of Doctor W. S. C. Perkins, when he started the practice of medicine in Norwich he needed no introduction on account of the enviable reputation which his father had made in Norwich. I might say that when the writer of this article started the practice of medicine in Norwich, W. S. C. Perkins was then the President of the Norwich Medical Association, a man whom any medical man would feel honored to have known and a consultant whom it was a pleasure to meet. He had a fund of medical knowledge and his ethics were of the highest type.

Doctor Charles was a man of retiring disposition. He suffered from a heart affection practically from chilhood and at times it was feared that he would never grow to manhood on account of this affliction, but due to his good care and good living he rounded out the customary three-score-and-ten. He never married. He was an ideal physician and was always happy in doing his best to help the needy, and in his quiet, unassuming manner he did a surprising amount of work. His thorough knowledge of his specialty and his kindness of heart for suffering humanity made him extremely loved by those who consulted him. The suddenness with which he was stricken caused a great shock to the community and his loss will be keenly felt for a long time to come, by those who relied upon his services.

Because of his kindly demeanor, his genial presence will not soon be forgotten in the community, and in the words of the poet —

> "So fades a summer cloud away
> So sinks the gale when storms are o'er,
> So gently shuts the eye of day,
> So dies a wave along the shore."

James J. Donohue, M.D.

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MICHAEL A. BAILEY, M. D.

1857 - 1936

Dr. Michael A. Bailey, son of William and Catherine Bailey was born in Enfield, Connecticut and died June 6, 1936 at his home in Hartford, Connecticut.

Early in life he manifested a desire to study medicine and later satisfied that ambition by entering the College of Physicians and Surgeons in Baltimore, Maryland, from which he was graduated in 1893. After serving as interne in the Mercy Hospital, Dr. Bailey came to Hartford where he became associated with his brother, the late Dr. George C. Bailey, in the practice of medicine.

Dr. Bailey was one of the founders of St. Francis Hospital and also served as a member of the Hospital Staff and the Board of Directors. He was a wise councilor and established himself firmly in the confidence of his patients, never failing to respond to their calls.

Notwithstanding his devotion to his patients he found time for other activities. He was a member of the Hartford Board of Education and served as Alderman in the Common Council. He was also a member of the Hartford Lodge of Elks and the Knights of Columbus.

It is interesting to note that he was the first to administer diphtheria antitoxin in Hartford.

In 1903 Dr. Bailey married Louise A. Moran of Hartford. He is survived by his wife Mrs. Louise M. Bailey, a son Judge John M. Bailey, a brother William Bailey, and three sisters, Mrs. Clellan O. Kibbe, Mrs. John J. Dwyer and Miss Hannah F. Bailey.

Dr. Bailey was a member of the American Medical Association and the Connecticut State, Hartford County and Hartford City Medical Societies.

N. Herbert Bailey, M.D.

DWIGHT WALLACE TRACY, M.D.
1883 - 1936

Dwight Wallace Tracy was born in Hartford, Conn., May 28, 1883 and died in the same city on March 22, 1936 at the age of 52 after a disabling illness of many months from heart and kidney disease. His father was David Wallace Tracy, a well known local druggist for many years and a native of Windsor, Vermont, and his mother was Miss Sarah Burnham of Hartford.

Dwight attended the public schools of Hartford, graduating from the Hartford Public High School. He next entered The Sheffield Scientific School of Yale University from which he graduated in 1904. At Yale he was a member of Sigma Xi honorary society. He was a student at the Johns Hopkins Medical School for four years, receiving his medical degree from that institution in 1908. His interneship followed at the Hartford Hospital after which he entered general practice in Hartford. He soon became a medical inspector for the City Board of Health which he continued eleven years. During the world war he was contract surgeon for the Students Army Training Camp at Trinity College with the rank of captain and later major.

After the war he decided to enter dermatology and in preparation for this he spent about two years largely at the Skin and Cancer Hospital in New York City under such men as Dr. George M. McKee and Dr. J. A. Fordyce, and then visited the well known skin clinics in Baltimore, Boston, Rochester, Minn., and Copenhagen, Stockholm and Heidelberg. He was one of the early specialists in dermatology in this city and had a large practice until his retirement from practice in December 1935. He was dermatologist at the Hartford Municipal Hospital, consulting dermatologist to the Litchfield County Hospital, Torrington, and the Middlesex Hospital, Middletown. For several years he had instructed the nurses in dermatology at the Hartford Hospital.

For many years he was an active and loyal member of Christ Church Cathedral, serving as one of its deacons. He was also a member of the Cathedral Chapter of the Episcopal Diocese of Connecticut.

Masonry had commanded much of his interest and support for years during which time he had been past master of Hartford Lodge No. 88, a member of Pythagores, Chapter No. 17, R. A. M.; Wolcott Council No. 1, R. and S. M.; Washington Commandery, No. 1, K. T.; Scottish Rite Bodies of Hartford and Consistory of Norwich. He was a 32nd degree Mason.

During his life he had been most loyal to his Alma Mater, Yale University, of which he was very proud. His clubs had included the University Club of Hartford, the Graduates Club of New Haven, the Yale Club of New York and membership in The Sons of the American Revolution. He was an honorary member of Trinity College, Chapter of Alpha Chi Rho. His medical connections comprised the Hartford Medical Society, the Hartford County Medical Association and the Connecticut State Medical Society, including the dermatological section of the latter society.

In May 1933 Dr. Tracy married Mrs. Florence Ozon Tracy who, with three stepchildren, John, Scott and Virginia, and a brother Richard, survive him.

Dr. Tracy was known for his generosity, charming hospitality and assistance to many young, promising college and medical students whose collegiate and professional education were in part due to him. He was a great lover of books and travel and devoted to his many loyal old friends.

He was able to carry on practice uninterruptedly until six months before his death, but in December his health had failed so that he was compelled to take to his bed. He never recovered.

Thus ended an active life of one with broad interests who had been a friend and physician to many in this community and a skilful dermatologist.

John A. Wentworth, M.D.

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WRIGHT BUTLER BEAN, M.D.
1865 - 1937

Dr. Wright Butler Bean died of coronary thrombosis in the Johnson Memorial Hospital, Stafford Springs, Connecticut, on January 18, 1937.

He was born in North Hatley, Province of Quebec, Canada, June 29, 1865, the son of Nancy Bellows and Freeman Bean.

His early schooling was in Moes River near Sherbrook. At the age of 18 he came to Nashua,

N. H., where he worked in a blanket mill and later in a grocery store.

In 1885 Dr. Bean enrolled in Tilton, N. H. Preparatory School, and two years later entered Harvard Medical, and after two years there transferred to Columbia College of Physicians and Surgeons, from which he was graduated in 1895.

He served as interne at the Seeley Hospital in Brooklyn until October, when he opened an office in South Norwalk, but continued to work in clinics in N. Y. City giving 2 or 3 days a week for the next two years.

In October 1896 he became a citizen of the United States.

On account of his health Dr. Bean moved his office to Rockville where he practiced successfully for the next fourteen years. While there he was chairman of the Board of Health and pushed the work of milk inspection. He was also influential in the installing of both the Visiting and School Nurses.

In 1922 he sold his Rockville practice and moved to Glendale, California. He was active and successful but homesickness for New England overcame his fondness for the California climate and he returned to Connecticut, settling in Stafford Springs, where he was in active practice for fourteen years till his death.

Dr. Bean was a very religious man and an active member of the Methodist Episcopal Church. His conscientious and happy disposition joined to his professional skill made his patients into lifelong loyal friends.

He was attending physician to the Johnson Memorial Hospital and past president of the Tolland County Medical Association.

In October 1895 he married Cora E. Earls of Malden, Massachusetts, who survives him as do one daughter, Marille Pratt of Malden, and his son, Allen D. Bean, of Los Angeles, California, and four grandchildren.

R. B. Thayer, M.D.
J. P. Hanley

• Abstracts •

CHARLES W. GOFF, M.D.

Novocaine Block in Spontaneous Gangrene. M. I. Mostkov. Soviet Medical Journal 8, 30 *April* 1937.

The author deliniates a number of excellent clinical observations and reports on the progress of treatment in cases of spontaneous gangrene of the lower extremities. The author states that the pathogenesis of spontaneous gangrene is not clear but believes the nervous system is definitely involved. He bases this assumption on clinical findings such as functional changes of the extremities with paresthesia, anaesthesia and pain. He also notes early blood vessel spasm leading to changes in the wall structures of the blood vessels with thrombosis and periphlefitis. He came to the conclusion that the destructive changes can be controlled if the nervous stimuli were removed from the field of the destructive lesions. The injection of 2% novocaine was performed as reasonably far removed from the foot as possible. The usual site of injection was the thigh about the middle third. This novocaine in amounts of 150 to 360 cc was infiltrated deep into the tissues, care being taken to avoid the blood vessels. With this collar of novocaine surrounding the thigh, the patient was allowed to remain in bed with the extremity elevated. The intervals between injections varied depending upon the amount of the individual's pain following injection. Hypertonic saline solution intravenously and physiotherapy occasionally were added to the mode of treatment. Good results are reported. Physiotherapy in the form of diathermy and massage often resulted in a spontaneous recovery. In the author's conclusions, he states that a large number of cases were noted in which the manifestations noted were pain and paraesthesia with years later necrosis developing. Then again, there were cases which completely recovered within a short period of time following novocaine block anaesthesia. He believes that certain changes are produced by this block anaesthesia in the nervous system of the extremities with new nervous atrophic components resulting. This leads to a recovery of the extremities. It is interesting to note that this author in Soviet Russia arrives at clinical conclusions which Takats in Chicago reaches thru careful research. Essentially the conditions are definitely related with the same fundamental disturbances existing in the cases of both authors.

Infective Arthritis and its Treatment. New Surgical Archives 36:1, *No.* 149-150 *Dnepnapetrovsr, U. S. S. R.* 1937.

The development of infection in the knee joint is very rapid. It usually takes two stages: (1) when empyema appears, (2) about eight or ten days later when a phlegmon of capsule is found. During the first stage the joint is inflamed and fluctuating. During the second stage the joint capsule swells and there is hardly any fluctuation. Author also observed that in the last stage a puncture gives a large quantity of free pus, whereas later, there is but very

little of it that can be evacuated. At that time there is severe pain and limitation of motion in the joint, also septic condition with fever, dry tongue and weak, rapid pulse. The infection penetrates very fast thru all the structures of the joint. In cases of open wounds usual care is given to them, but if there is no wound, pus should be evacuated and joint irrigated with saline. Author also recommends injection into joint of 0.5 — 1.0 c.c. of sol. camphor napthol (ac. carbol cryst. 30.0, camphor 60.0, alcohol absol 10.0). It seems better to evade surgical procedures in early stages since it very often leaves an ankylosed joint. As to the choice of operative procedure, a wide arthrotomy with plenty of drainage should be considered first and only in cases of poor results resection should be made. These methods have been used successfully on knee joints, but should not be applied to infections of wrist shoulder and elbow.

——☆☆——

The Care of Fractures of the Nasal Septum. Eitnar, E., Zentralbl. fur Chir. 64, 19, 8 *May* 1937.

Realizing that fractures of the nasal cartilage often unite in distorted positions following injuries, the author suggests correction in the following manner: (1) Preparation of the field by any antiseptic technic desired. (2) Mobilization of the fragments thru two small incisions, one on each side of the septum within the external nares. In this manner the scar will not be visible. (3) The fragments of cartilage which are thus mobilized are overlapped, if necessary and sutured in their new position by matress sutures of silk thru and thru the skin of nose. The re-position of cartilage fragments calls for considerable ingenuity and an appreciation of the proper proportions of the patient's physiognomy. Incidentally, excessive scarring of the lip can be corrected at the same time. This author reports a number of cases with illustrations. He does not use splints or other apparatus to hold the fragments in position insisting that proper suturing will maintain their new and improved positions.

——☆☆——

Das Roentgenschichtverfahren (Roentgen Visualization by Layers). Janker, R., Zentralbl fur Chir. 64, 14. 3 *April* 1937.

The technic of demonstrating the various layers of parts under consideration desired is discussed in great detail. The various fields in which this particular form of roentgenography proves especially valuable are defined. Particular emphasis is laid by the author on the various layers in lung fields that can be shown. This process is applicable to orthopedic surgery in demonstrating tumors of bone and dislocations of bones particularly of the wrist and akle. Ventriculography offers great possibilities when studied by the layer procedure. Some of the illustrations in the article are remarkable while others cannot be appreciated. The author believes that the size of the apparatus and the greater cost of the films will prevent its broader application for some time to come.

• Quarto Notes •

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Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine

Assisted by T. S. Zahorsky, B.S., M.D.
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This book is well written, and is essentially a history relating to the care and treatment of the mentally ill. It brings the data up to recent days, and for any one looking for a quick reference, it presents an excellent source of information.

R. L. Leak, M.D.

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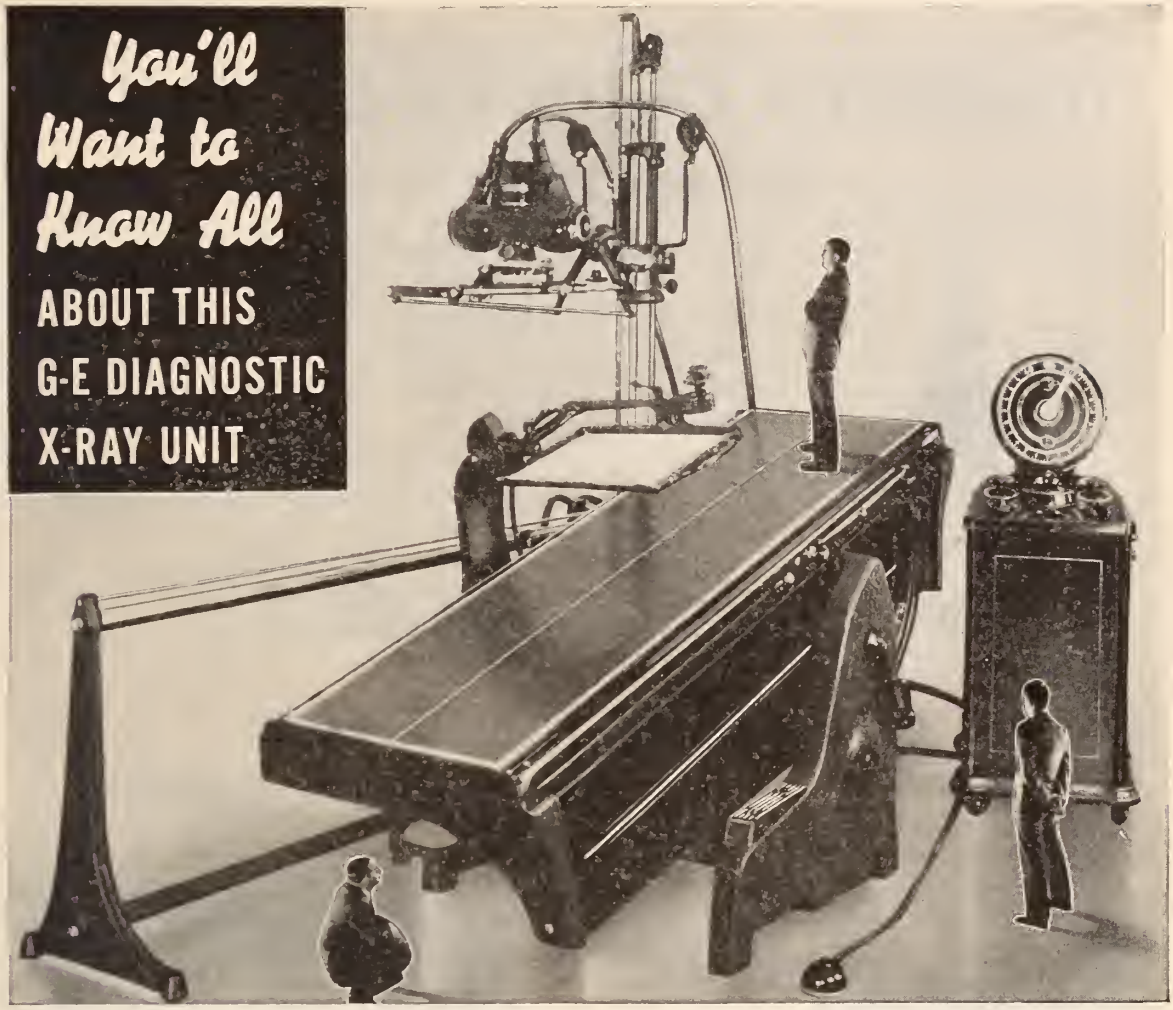
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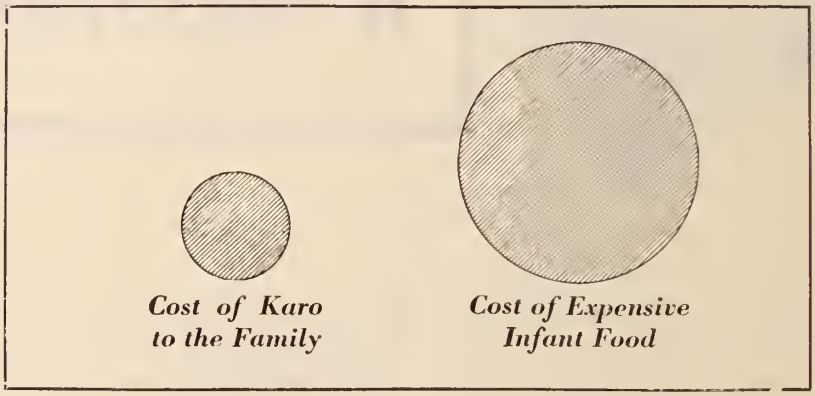


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In gastrointestinal disorders, "Dextri-maltose has been preferred to the other sugars as apparently less irritating."—*E. Cassie and U. Cox: The examination of the gastric contents in infants, with some considerations as to the value of lactic acid milk in infant feeding, Lancet, 2:322-325, August 14, 1926.*

"As to the kind of extra carbohydrate to be added, whether lactose or maltose, I believe dextri-maltose to be better in general in cases of fat indigestion (infantile atrophy)."—*C. H. Dunn: The Hygienic and Medical Treatment of Children, Southworth Co., Troy, New York, 1917, V. 1, p. 418.*

In the treatment of decomposition, "The period of repair may be shortened by giving suitable additional food; the best, probably, being buttermilk to which carefully regulated proportions of dextrin and maltose preparations or malt soup are added."—*E. Feer: Text-Book of Pediatrics, J. B. Lippincott Co., Phila., 1922, p. 284.*

In infantile atrophy, "The carbohydrate should be increased by gradual addition of dextrimaltose.

"Malt soup or dextrimaltose (Mead's) should be added in teaspoonful or more doses to each feeding until the point of carbohydrate tolerance is reached."—*L. Fischer: Diseases of Infancy and Childhood, F. A. Davis Co., Phila., 1925, V. 1, p. 285.*

In the case of a premature infant, "Dried milk with water was given, which later was changed to whole milk, 14 ounces; water, seven ounces, and dextri-maltose No. 1, one and one-half ounces. Seven feedings of three ounces each every three hours was given. The above feeding was retained. The infant gained eight ounces at the end of the first week."—*L. Fischer: Clinical notes in a series of premature infants, Arch. Pediat. 44:227-231, April, 1927.*

In the treatment of decomposition, "As a rule it is best to start with 2 to 2½ or 3 ounces of albumin milk to the pound weight in 24 hours; the sugar to be added is in the form of a maltose-dextrin mixture. One should never delay too long in adding this."—*C. G. Grulee: Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 265.*

With reference to hypotrophy, "In mild cases, the addition of dextrimaltose instead of cane or milk sugar may be sufficient to obtain a gain in weight."—*C. Herrman: The treatment of nutritional disorders in artificially-fed infants, New York M. J. 114:158-160, August, 1921.*

In athrepsia, "The carbohydrates are usually added in a slowly fermentable form, such as the maltose and dextrin compounds, which are usually started by the addition of four grams per kilogram (1/15 ounce per pound) and increased until eight grams or more per kilogram (¼ ounce per pound) of body weight are added."—*J. H. Hess: Feeding and the Nutritional Disorders in Infancy and Childhood, F. A. Davis Co., Phila., 1928, p. 278.*

Concerning the treatment of marasmus, "When the stools have become smooth and salve-like, carbohydrate, in the form of dextrimaltose, may be gradually added up to the limit of tolerance."—*L. W. Hill: Practical Infant Feeding, W. B. Saunders Co., Phila., 1922, p. 281.*

In the feeding of prematures, "As soon as there is a hesitation in the gain in weight, dextrimaltose No. 1 is substituted for the dextrose, in the same amount in the mixture, with almost invariably a gain in weight."—*F. B. Jacobs: Relation of irradiated food substances and ergosterol versus cod liver oil in childhood nutrition, Pennsylvania M. J. 35:164-167, Dec., 1931.*

"A spasmophilic baby on bottle feeding should receive a limited amount of milk—a pint, or at the most 24 ounces in the 24 hours—to which cereal gruel and some form of sugar is added, preferably one of the malt dextrin preparations; also the early addition of other foods than milk to the baby's diet."—*M. Jampolis: Infantile spasmophilia, Interstate M. J. 25:652, Sept., 1918; abst. Arch. Pediat. 35:691, Nov., 1918.*

In cases of malnutrition and indigestion, "The appetite improves rapidly, and the stools soon become normal in appearance, if the sugars are intelligently prescribed. By this I refer to proper proportions of dextrin and maltose. When there is a tendency to looseness, I have used the preparation known as 'dextri-maltose,' for the extra carbohydrates; . . ."—*M. Ladd: Further experience with homogenized olive oil mixtures. Arch. Pediat., 33:501-512, July, 1916.*

In pyloric stenosis, "With low dextrose tolerance, a maltose dextrin preparation may be added in whole or in part. Even where the dextrose is well tolerated and gain in weight has ceased, impetus to the weight ontake may be given by the addition of a maltose dextrin preparation."—*D. J. Levy: Pyloric stenosis and pylorospasm of infancy with especial reference to medical treatment, J. Michigan St. M. S., 21:166-170, April, 1922.*

With reference to the treatment of diarrhea, "After several days, 2% to 3% of a maltose-dextrin preparation may be added (Dextri-Maltose). This is preferable to the easily fermentable lactose or cane sugar."—*F. Lust: The Treatment of Children's Diseases, J. B. Lippincott Co., Phila., 1930, p. 145.*

In dyspepsia, "The carbohydrate must not be allowed to exceed 3 per cent. Dextri-maltose is the most suitable sugar."

In the treatment of decomposition, atrophy, malnutrition, marasmus), ". . . when there has been obvious improvement, dextri-maltose is gradually increased from 3 to 5 per cent."—*B. Myers: The nutritional disturbances of infancy, Brit. M. J., 1:1079-1083, June 21, 1924.*

"The treatment of artificially fed children in the first of these groups consists in putting them on a low fat dietary, and giving them carbohydrate in the form of one of the less fermentable sugars—e.g., dextrimaltose."—*L. G. Parsons: Wasting disorders of early infancy, Lancet, 1:687-694, April 5, 1924.*

In the milder cases of inanition, "Regulation of this disturbed organismal balance is obtained by the addition of carbohydrates, while fat and casein are reduced. For this purpose dextrimaltose and flour are better than the ordinary sugars, since they are more slowly absorbed and have greater efficacy in their powers of controlling the flora in the large intestine."—*W. J. Pearson and W. G. Wyllie: Recent Advances in Diseases of Children, P. Blakiston's Son & Co., Phila., 1930, p. 116.*

In intestinal intoxication, "I have had more experience with dried skimmed milk in which 2 to 5 per cent dextrimaltose, barley or rice flour has been cooked, and the mixture subsequently fermented by lactic acid bacilli or soured with lactic acid, than with any other food except protein milk."—*G. F. Powers: A comprehensive plan of treatment for the so-called intestinal intoxication of infants, Am. J. Dis. Child., 32:232-257, August, 1926.*

Regarding the treatment of the marantic infant, "After the intolerance to sugar has been overcome a carbohydrate, preferably Dextri-maltose, may be added."—*C. S. Raue: Diseases of Children, Boericke & Tafel, Phila., 1922, p. 427.*

In spasmophilia, "Dextri maltose is the best sugar to use in these cases, in the proportion of 6 to 8 per cent."—*J. H. Reading, Jr.: Spasmophilia, Hahneman. Monthly, pp. 403-411, July, 1922.*

In the treatment of atrophy, "If the baby continues to improve, the next step in the treatment is to add to the milk one of the less fermentable carbohydrates, such as dextrimaltose; . . ."—*H. Thursfield and D. Paterson: Diseases of Children, William Wood & Co., 1929, p. 105.*

"I also find dextrin-maltose an excellent addition to albumin-milk when the first object of that food has been achieved and a gain in weight is desired in this way I have succeeded in feeding albumin-milk far beyond the period usually advised, with highly gratifying results."—*F. L. Wachenheim: Infant-Feeding; Its Principles and Practice, Lea & Febiger, Phila., 1915, p. 158.*

"Dextri-maltose has been substituted for lactose not infrequently, when the tolerance for the latter continues low."—*J. H. West: Low fat, high starch evaporated milk feeding for the marasmic baby, Arch. Pediat. 48:189-193, March, 1931.*

"Malt sugar is indicated when others fail to produce a sufficient gain, or when malassimilation of fat is evident."—*O. H. Wilson: The role of carbohydrates in infant feeding, Southern M. J. 11:177, March, 1918; abst. Arch. Pediat. 35:447, July, 1918.*

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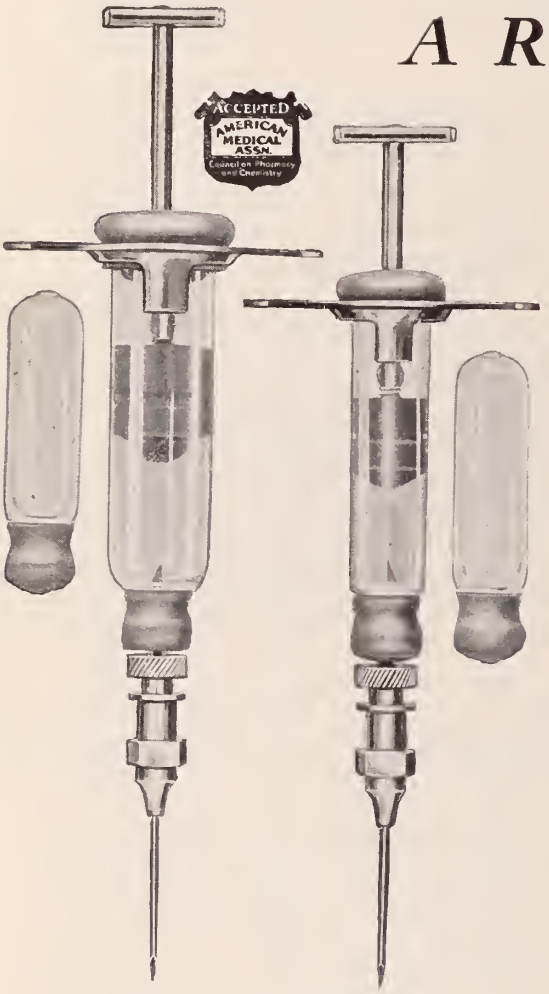
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VOL. I. NOVEMBER, 1937 NO. 6

Reminiscences in the Development of Gynecology*

HOWARD A. KELLY, M.D.
Professor Emeritus, Gynecology, Johns Hopkins University, Baltimore

I am very happy to be with you gentlemen, and I want to thank you from my heart for your kind welcome. I have come up into my ancestral home, which is the northern part of the country. My mother comes from Vermont, so I claim some kinship with all of you who have been born and lived here.

I want to talk to you a little about progress in gynecology in so far as I have been associated with it. It involves a good many items. Age loves its reminiscences, dwelling with thankfulness upon the debts of the present to the past. I would stress this at the outset, as we are in danger of losing life's chief ornaments — a due sense of gratitude and thankfulness. Sad is the lot of that social group which fails to honor its predecessors from whose loins it sprang. In medicine, in particular, history is the cultured side of our professional life, and great is the loss of him who neglects it. One finds at times in the waste-basket of retrospect, documentary evidences of matters overlooked and still of value. That is particularly true of the history of the appendix operation, but I won't go into that now.

I take it that as we pursue our daily activities, our vista may often include the consciousness of one or two of the generations immediately behind us, summoning us actually to live and move in the aura of our worthy antecedents. For example, in my specialty of gynecology, I claim a quickening fellowship with Ephraim McDowell and Jane Crawford, as McDowell in 1809 boldly took his first step and opened up the vast field of abdominal surgery.

I have also assuredly lived in Mount Meigs and Montgomery, Alabama, with Marion Sims, witnessing his conquest of woman's most distressing, age-long enemy — vesicovaginal fistula — through unheard of disciplines, as he struggled to relieve those poor negro heroines, Anarcha,

*Presented before the Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19 and 20, 1937.

Betsy, and Lucy, and all without anesthesia. Who is ready for such sacrificial efforts today?

I have been present, at least in spirit, when John Collins Warren in the Massachusetts General Hospital was the first to operate on a patient under anesthesia, throwing open the portals to the unending beneficent series of anesthetics. What a remarkable thing it is that anesthesia beginning there hasn't yet run its gamut. It is extraordinary, isn't it? And was I not present with James Y. Simpson and Thomas Keith in Edinburgh when they both toppled over on the floor on Queen Street, while taking the forlorn chance which revealed the anesthetic properties in chloroform, waking up to cry, "We have found it!" Yes, I was later actually in the very room with some of the family. That was some fifteen or twenty years ago.

May I stretch my reminiscences still a little further to recall John Hunter and peep over his shoulder as he writes his former pupil Edward Jenner, "Don't think, try!" which ought to be over every laboratory in the land, not altogether to exclude thinking, but to get your hands into living contact with the things you are dealing with, and work out in that way the pragmatic basis of knowledge in the realm of nature.

With these backgrounds, let us now try to follow the lines over which our specialty, gynecology, has traveled from about the middle of the last century, looking first at ovariotomy. After McDowell, its progenitor, came Nathan Smith, who became an ovariotomist in 1821 without any knowledge of his antecedent Kentucky fellow-countryman's work. Next came Charles Clay of Manchester, England, who, beginning in 1842, operated frequently and successfully and who was Lawson Tait's teacher. A significant sidelight on Clay is that he is noted for his meticulous scrubbing up before operations in the pre-antiseptic era. The two Atlees, Washington Lemuel and John Light, of Lancaster, Pennsylvania, began their phenomenal series of ovariotomies in 1843 and 1844, becoming the most noted surgeons of their day. Washington went to live in Philadelphia where it was urged that he ought to be indicted for murder for doing that which, with the arrival of anesthesia and antiseptic surgery, shortly became one of the most uniformly successful of all our great surgical procedures.

Let us pause here as a tribute to Randolph Peaslee of New York, one of the best scientific minds of our country, too infrequently mentioned, who began his ovariotomies with four successful cases in 1850. His book, "Ovarian Tumors" (1872), is his enduring monument.

A new factor destined to become the scientific basis of surgery rose on our horizon in R. Virchow's, "Cellular Pathology" (1858), at first looked at askance by aspiring surgeons as the imposition of a time-consuming, esoteric doctrine. I expect you passed through the same experience that I did: We got practically no pathology, as I was going through my university training at the University of Pennsylvania, in the late 70's of the last century. I know there was nothing we disliked more. We thought we just had to pass an examination to get through with it, and that would be the end of it. It really took many years for pathology to find its proper allocation in the field of our work-a-day world.

Harry Coe of New York made a brave effort to place it in gynecology. I visited Coe just a few days ago in Washington. He is getting feeble with years, but his mind is clear. He is the same splendid fellow he always was when we used to go to see him at the Woman's Hospital. After him came Thomas S. Cullen, who, coming from Toronto to our Baltimore gynecological staff, devoted three years to pathology before taking up his operative work. J. Whitridge Williams about this time also contributed several important classic papers.

I always recall with pleasure the way I got hold of Cullen. I was going up to join Leslie Sweetnam at Toronto. He was the leading surgeon there then — this was in 1891 — and they asked me to operate at the Toronto General Hospital. They had two cases. One was an ovariotomy. I forget what the second one was. Llewellys Barker gave the anesthesia, and Cullen assisted in the operation. Well, they had been rather slow in the work up there, somewhat after the old-fashioned way. They would run in a groove director and cut, then do it again and cut, and it took about fifteen minutes to get into the abdomen. Cullen turned to thread a needle and when he looked back to the table the tumor was out and he was asked for sutures to begin to sew up. He had made up his mind he was going to be an internist. He went to Leslie Sweetnam whom I was visiting and said, "I would like to

see him again." "Come down to my house for lunch, and we will have a talk." Before I left that day he had given up general medicine for surgery, and I accepted him as my resident at Hopkins. In other words, there had come into surgery with our new experiences, a new regime.

But by far the most dramatic medical or surgical discovery of all time appears to me to be Joseph Lister's work on sepsis and antisepsis, inspired in a way by Pasteur's laboratory, a contribution which has completely renovated and transformed the field of surgery, with the resultant saving of tens of thousands of lives yearly. How foolish our people were who tried to discredit Lister who unfortunately used the word "antisepsis" instead of "asepsis." They said, "Well, now, doctors practice asepsis and Tait practices asepsis, and this is something different from antisepsis," as if it weren't all one and the same thing, and Lister's work, after all. We were very argumentative in those days, had lots of discussions, and I think sometimes we had little rows that don't seem to exist in the profession today. Before Lister's time, surgery was limited in its offices and rare — always dreaded because of suppuration which made shambles of all our hospitals, and notably of his own in Glasgow. Take the Eleventh Edition of the Encylcopedia Britannica, and read what it says there about Lister. I wish I could express myself as well.

In my own time, in the late seventies, I heard much of laudable pus. I was under Agnew, who was Garfield's physician, as you remember, and Gross, the elder, a wonderful, splendid man, one of the ablest scientific surgeons this country has ever seen — and that was the day of laudable pus! How little we at first anticipated the vast, beneficent surgical field shortly to spring up under this fructifying doctrine with anesthesia. I smile when I hear men decry doctrine and dogma. Men, all our science is made up of doctrine and dogma, so don't make fun of people who talk about doctrine and dogma in other fields than in medicine and surgery.

I show you here one of the most precious possessions of my library, a letter bearing on what is probably the first great case of compound fracture saved by Lister in the Glasgow hospital, one which determined all that was to follow in the field of surgery. I was in Canada, running up to my camp where I have been going ever since 1891. My family, which then consisted of a one-year-old (I have nine now) has grown up there. My home in Baltimore is but a poor brownstone house, compared with our cabins up on Ahmic lake. I was coming home from there after camp one summer, and I went into Hardwick's on Bay Street, Toronto, to see what he had in second-hand books. I saw a good copy of Lord Lister's life by Godlee, and bought it. I had one at home but thought it would do for one of my staff. When I collated it, lo and behold there was a handwritten letter of Lister's, touching the very first case in which he carried through antisepsis, the thing that gave birth to all that has followed since. I am going to read it to you in a moment. I wrote back to Hardwick and told him, "You have given me unwittingly a most valuable book; you must put a price on it, for what I paid you for it isn't enough." He wrote back and said, "No, it is all right. Keep the book." However, I sent him an additional check.

The letter reads: "11th of June, 1866. My dear Father, I have really little or nothing to write about this week and have left myself very little time before the first classes.

"I have a continued good report to give of the compound fracture, which is indeed now no longer a case of uncertainty. So I have made up my mind to publish on the subject, and intend running into Edinburgh tomorrow afternoon to consult with Mr. Syme as to the best medium of publication.

"There is another case of compound fracture under my care just now, with a very extensive wound, but it is too early yet to say if the carbolic acid, which has been applied to it, is going to succeed. But I rather fear from the appearance today, three days after the accident, that suppuration will take place. If I were to treat just such a case again, I should proceed rather differently, using the acid more freely."

"Thee will be glad to learn that we have at length broken ground on Gilmorehill, the site for the new College. For the last week workmen have been engaged leveling the top of the hill, preparatory to the digging for the foundations.

"Please, dear Papa, excuse this most shabby note, will at least serve to remind thee of the love of thy ever affectionate son, Joseph Lister.

"Agnes would of course send her love were she at home."

What a nice letter to find in a book. The owner evidently prized it greatly, but it got into

the second-class bookstore. That was worth more than everything else put together, wasn't it?

My first experience with "antiseptic" surgery occurred in connection with a good surgeon, in the Episcopal Hospital of Philadelphia where I was resident. Attempting an antiseptic operation on a strangulated hernia, he cut through the wall, and the bowels popped out over the bed. It was antiseptic surgery, just the same. The idea our predecessors had was that there was some kind of drug you used which worked a sort of magic. The idea which was always in Lister's mind, with whatever change might come — the great principle of disinfection through killing the germs or preventing their entrance — didn't get into the heads of the older men, even such splendid men as Agnew. Convincing as was the evidence, the new principle, so potent in its now realized possibilities, was a laggard at first.

Now, just a paragraph concerning the onset and continuously developing science of bacteriology in its many obviously fruitful associations with our work. The main things we began to learn were that bacteria are associated with all active inflammatory lesions. That was Lister's great discovery, wasn't it? That they vary in important ways in kind and properties. That efficient postoperative drainage, usually *per vaginam*, for the most part takes care of any left behind it. Further, that we must be most careful while operating to prevent spreading localized infections beyond the field of operation. You may recall that Lawson Tait, right under Lister's nose, said that he would be willing to pack his wounds with dry germs.

To continue our gynecological retrospect: One of our most interesting conquests in the field has been the hysterectomies for such often massive affections as fibroid tumors. At first our patients died of hemorrhage (as did one of my own) during operation or following it. A great difficulty was the large fleshy pedicle. You younger men here will think justly, "Why, look here, that is an easy thing to do. The cases all get well. Why didn't they just do this, that, or the other thing?" Things don't come into people's heads so easily, that afterwards seem perfectly obvious, and you wonder how on earth the older men could have missed seeing them. It is the same way today. It is hard to get new ideas tried out or accepted.

W. L. Atlee operated successfully in 1844. John Bellinger in 1846 did the first deliberate hysteromyomectomy, but his patient died. In 1853, Walter Burnham of Lowell, Massachusetts, operated successfully, but the expectation had been an ovarian tumor. In the same year, Gilman Kimball of Lowell did the first deliberate, successful operation, with the diagnosis, "fibroid tumor of the uterus." *Mirabile dictu*, a general surgeon, L. A. Stimson of New York — there is no reflection intended on the general surgeons — in 1889 directed our purblind eyes to the fact that the crucial step was to ligate in a bunch each of the distinctive ovarian and uterine trunks, the ABC of simplicity, when you know it, but it took a long time to see it. And yet, we still had the troublesome big pedicle to deal with, and as we tried out every conceivable way of handling it, we still lost our cases.

My personal contributions here have been: One, the combined extra- and intra-abdominal treatment of the pedicle; that is, I sewed the cervix up and then hung it, with long sutures, enveloped in the peritoneal folds of the lower abdominal wall in the lower angle of the wound, so that it might be pulled up instantly and everted in case of hemorrhage. But there was no hemorrhage, so the next step was to drop it, and the patient recovered, and the radical operation passed over into routine procedure.

A second addendum was in sundry and special very adherent cases, to bisect the uterus. Take a big tooth-crushing forceps and a knife, and cut it in half, and, lo and behold! there is very little hemorrhage, no bleeding from the periphery, and none at all from the tumor inside. Cut across the cervix and turn it up, and then enucleate the uterus on the easiest side first; then follows the remaining half, and lo and behold! it is all done.

There is another thing which we apply more to inflammatory cases, but is applicable in these fibroid tumor cases too. In this we get at the cervix first. The bladder being in the way, is separated and pushed down. The cervix is then caught above and below and divided, and the upper end pulled up, and the uterus enucleated from below upwards.

It did seem that with Sims and Emmet, the great opprobrium of our gyneoclogical surgery, vesicovaginal fistula, was once and for all lifted out of the category of the impossibles. When you read a life of Sims you are astounded at some of the cases he did successfully. Emmet

used to operate quite a number of times to get those very large fistulas closed but he got it done ultimately. In reality there were a lot of tough cases we could not handle until a simpler remedy was found — I don't think any of us have the skill that our immediate ancestors had in dealing with bad cases of vesicovaginal fistula — namely, the method of splitting the vagina in the median line and then detaching it on all sides from the fistula, while freeing the surrounding bladder walls until they hung relaxed in the opening to be sewed up separately. If there was not enough vagina left to cover the area, I left it to epithelialize. Mackenrodt deserves special credit here, while I spent much pains in elaborating the new method. One should not omit the claims of George Gray Ward in further simplifying this difficult operation.

Let us now turn briefly for relief to such a simple operation as the suspension of retroposed or retroflexed uteri. We must remember that uterine displacements and their treatment constituted a large part of the gynecological *savoir faire* of our predecessors. The common retrodisplacement obviously not in accord with the ideal pictures of our early textbooks as to just what the uterus ought to look like if you made a cross-section of the body must be righted, for is it not a prolific source of dysmenorrheas, backaches, tardy bowel function, headaches, and all the ills of the neurotic complainant? (I am an ancestor now and arguing as they would talk.) For the relief of this so readily diagnosticated malady, nervous women haunted the consulting rooms of the older gynecologists of the obstetric school, passing a large part of their unhappy lives in trying out pessaries of all sorts with varying periods of quasi-relief, while books like Grailey Hewitt's devoted heroic pages to its elucidation.

Finally, anterior displacement, a developmental condition, also crept into the category. A predecessor in my University of Pennsylvania chair — that is Hodge, of whom Dr. Thomas has written a life recently, I am glad to learn — devoted 129 pages of his great work to displacements. I was also obsessed with the notion of clearing up or in some measure relieving retroflexions, but, being surgically minded, naturally devised the operation of anterior suspension which was first done in 1885. About the same time my friend, Professor Olshausen was engaged in like manner (*Centr. f. Gyn.*, 43, 1886). In those early, palmy, nonoperative days, reputations were easily made in the invention of a new pessary or in giving a new quirk to one on the market. A good many of you will remember that, too, won't you? Time alone revealed that in most instances, we were unduly attentive to a condition in itself harmless, engaged often in making a uterine case of a woman whose nervous system was really at fault or who had an endocrine maladjustment, or who, if parous, might need a plastic operation on the anterior vaginal wall and the outlet. So, ought we not almost to write finis to this attractive little suspension operation? I think so. I was present at its birth and I feel that I am present today at its death. We don't need to do suspension operations.

"Pus cases," to use a somewhat slangy, familiar expression — and this won't mean to the younger men what it must mean to a good many of us older men for we were always talking about "pus cases"— which I somehow connect particularly with our Philadelphia Obstetrical Society meetings, fell upon us like a bolt from the blue, emanating from the work of the Englishman — Lawson Tait. What ructions and what endless discussions the first published cases raised in our conservative ranks, and what plates of pus-filled tubes and tubes with their attached ovaries we proudly passed about at the Society meetings for the delectation of other, at first highly skeptical, members. As followers of Tait, Joseph Price, his brother Mordecai, Montgomery Baldy, and I never wearied in our propaganda for this just discovered, comparatively common, dramatic cause of female woes; and, firmly believing the adage, "Seeing is believing," we continued to display our convincing wares. What a period in the history of the birth of our new specialty. It became gynecology's most thrilling era, for methinks there can never be another like it! That is, that era of the pus cases coming to our notice and being brought out for wide use all over the world. Personally, I rather lost interest in the monotonous repetitions, coupled with some personal disputations, so I was glad to retire in 1889 to end my days in the secluded precincts of Baltimore.

Increasing skill in bimanual examinations soon made these conditions so long overlooked so evident in diagnosis. This was our shibboleth: Does he use the bimanual examination? He

can't know anything about gynecology as we know it. We are so proud of that. It was, of course, really a test, but we impolitely and unkindly, I am sorry to say, put it up as the means of judging whether a man knew anything about gynecology. You must remember that the digitation, the finger touch, was all that our predecessors had. They would put their fingers in to feel the cervix, and make a diagnosis. Then they would look through a speculum handled with some difficulty, and somewhat objected to. Meigs says in his work that he rather dreaded people going to doctors, because the mere examination would bring about a state of quasi-immortality. It would get their minds maladjusted to the purities and the better things of life. He mentions one case that came to him from a couple of hundred miles. She said she didn't want anybody in her part of the country, Western Pennsylvania, to know that she had been in a doctor's office. The whole attitude is now different.

Several experiences taught me valuable lessons. One was in the early days when I flattered myself on my boldness and originality in departing from the cunctator precedent and opened the vaginal vault and discovered the abscess, opening and draining it. Another fact we all noted was that this pus was not apt to be virulent like some other kinds; we did not know then that it was demonstrably gonorrheal. A further rule of thumb was, never to imitate Tait in exposing the abscess mass and fastening it to the abdominal wall, then opening and draining it *in situ*. Finally, some of the worst cases were handled beautifully by exposing the fundus uteri and grasping it with a large toothed forceps at either cornu and bisecting the uterine corpus down into the cervix, then effecting a safe removal by working from behind forwards.

I remember very well — I think of it as if it were yesterday — a case I operated on. You couldn't feel any abscess, although she was tender, nor any pointing, but I said, "I am going to open up this vagina and try to reach that above." So I made a little incision and I opened it up. It was in the patient's house. We always used to operate at home. In those days people didn't go to the hospitals readily. I broke in and drained the abscess. It was something great — I was going to report it — I didn't wait for it to point. It wasn't so easy to think of those things then as it is for the fellows today who have these things at their fingertips. Time fails to dwell upon the precious lessons we gradually learned about drainage, with gauze or with Keith glass tubes. What arguments we did have about drainage. I remember one meeting we had, the Southern Gynecological. Royster came down from Roanoke, Virginia — it was at Raleigh — and said, "Away with the drainage — away with the drainage," just as the Germans had written, "Have no more catgut." "Well, I wouldn't like to do away with drainage altogether, would you? However, we are using it to excess. When I first came to Hopkins, among the first hundred abdominal cases, way over 80 per cent were drained. If we drained 10 to 15 per cent today we would be doing a good deal of drainage. You see our relation to these things.

Another utterly unexpected, startling incident was the sudden advent of extrauterine pregnancy in the gynecological arena. Common enough? Yes, common enough, but it wasn't common in those days. It is curious how it came out, with its rapid evolution from a dangerous, life-threatening condition into a fairly common, delectable, remediable one. How we like to find them. A great early writer about this condition was John S. Parry of Philadelphia (1876), but Lawson Tait was its prime surgical protagonist. In operating in 1883, Tait happened on a case by accident. This he reported and with his subsequent experiences he raised this novel subject to one of the highest importance in the surgical field, with which his name is now inseparably connected. At first, Tait over-emphasized the impossibility of diagnosis. A case of my own, however, gave me a rare chance to recognize the condition and invite friends to see an operation for "extrauterine pregnancy." I made bold to declare this at the Brighton meeting of the British Gynecological Section. It occurred in my bailiwick in Kensington, Philadelphia.

Thank God, when I started out, men, my family was living down in the middle of the city and Dr. Weir Mitchell was our family physician. Dr. Meigs had also been in the family, and the idea was that I might stay downtown. Father fitted up an examining room and a room for seeing patients. But I said, "No, the people up here in Kensington are poor but they are kind, and they love me for whatever I may have done for them. I am going up there." So I went up

in Kensington and settled among the poor, in a two story house, with a Scotchman and his wife. He had been in the war, and his children were working in the mills. If you wanted to get me there at night, you could stand on the pavement, put your hand in through the window, catch me by the foot, pull me out of bed, and take me around to the case. I slept on a Hoover's patent sofa. In the daytime it was made up as a sofa for the patients to sit on. Then I had one of these chairs that did everything. I might advert here to that, because we all went through the period more or less, in those days, of buying a chair that you could put this, that, and the other way.

A fellow came in to me in the evening. "Doctor, I have a stone in my bladder" he told me. He had been downtown and had seen Sam Gross at the Jefferson Hospital, and he evidently was proud of his condition. Finally, he said, "Doctor, when will you operate?" I knew I was never going to get a chance to operate on that fellow. He wanted to go around and show himself. I said, "Now." So I put him up on the chair and cut and pulled out a nice stone about as big as the end of my thumb, about two cm. in diameter. I didn't tell those fellows downtown what I did. He went home right away, out of my office. I had heard something about urinary infiltration and I was worried he would get that. But he never came back, and he got along all right. When he went downtown and told those doctors, Sam Gross and the others, I know what they said, "Now, look here, that is a dangerous fellow up there. He is doing all kinds of things right in his office." I will tell you the secret: The stone had gotten down into the upper urethra, so I could just push it up and take it out. But I didn't tell them for a long time. We had all sorts of cases up there. I got practice. I wanted to work, I wanted to operate and do things — get my fingers into it. I got it up there because I knew all of them, having treated them in the hospital. Dear old Dr. Minick from Buck's County, Pennsylvania, sent me lots of cases. He would say to people, "Kelly operates every morning, does a cesarian section before breakfast."

I must go back to the patient, this "extra-uterine pregnancy," which I told about at the Brighton meeting. The patient came week by week with a marked right side pelvic pain associated with a tender tumor increasing rapidly in size — remember, we didn't know anything about extra-uterine pregnancy in those days — then it diminished notably. Just at that juncture, a paper appeared by Gil Wylie of New York in the American Journal of Obstetrics in which he connoted that such a shrinkage was pathognomonic of extra-uterine pregnancy, and I was reading it as we went through the streets. "Why, I have it," I almost hollered out in the buggy, "that is what that case is." I didn't know before that. That settled the diagnosis question, and at the operation we found an unruptured dilated tube containing a small fetus. Tait evidently did not relish such freshness and animadverted upon the cocksureness of the young disputant, but my British colleagues were evidently pleased to have their quarrelsome Goliath challenged. They were all rather afraid of him.

Young fellows, don't get scared of the older men. When I went to Baltimore I had had a good deal of experience. The younger men were all dreadfully afraid of two or three older men, awfully nice fellows those older men were. One was H. P. C. Wilson, the other was Dr. Howard. But the younger men were afraid to do anything for fear they would be criticized. When I went down there I launched out independently. Fortunately we were in a distant part of the town anyway and went ahead at Hopkins, building up the clinic, and gave the young men face. They went ahead with things they hadn't done before. In the Johns Hopkins Hospital, as elsewhere, we, of course, soon accumulated many ruptured cases where diagnosis was confirmed by operation. Remember, those were early days.

My first cesarian section on a Mrs. Ireland in the presence of R. P. Harris and William Gardner of Montreal, in April, 1888, broke the record of consecutive deaths in Philadelphia following the successful and justly celebrated operations by William Gibson on a Mrs. Reybold in 1835 and 1838. Mrs. Reybold outlived all the doctors present at her operations.

Troubles in the urinary tract in women were long neglected and passed over by a profession which could only be deeply interested in male urology. The diseases, their nature, extent, and cure, were left in the gynecological dark room. (I mean the Rumpelkammer). F. von Winckel

had written a treatise of 231 pages in 1876. Emmet had opened the bladder for rest and drainage in cystitis. And Skene's keen vision — dear old Skene of Brooklyn — had discovered the paraurethral glands where infection lingered. I don't know whether you have noticed it, but very often, quite commonly, there are very distinct labia, just as distinct as the labia minora, and I didn't know whether from one of his descriptions Skene had noticed that fact. Of course he must have seen it, but no one had drawn special attention to it. So I wrote and asked him what he meant, if he simply referred to the rounded edges of the urethra or anything more. He replied by simply describing the paraurethral glands and referring to the rounded edges where the urethra rounded out, so I put that description in one of my books and called them labia urethra.

The totality of our vesicourethra terrain, however, in women, remained *terra incognita.*

I had been working in the early nineties over the possibility of fixing with fair accuracy the trajectory of the ureters from the pelvic brim up to the kidney as traceable on the anterior adominal wall, my friend, Dr. Wiltshire, of Baltimore, letting me have his dissecting room material. It was about that time, also, that I was over in Berlin and saw Virchow who offered the facilities of the pathological department in Berlin Charité to me, to make such operations as I wanted to on the cadavers. I was also much interested in verifying a note of Rudolf Chrobak cited by Max Saenger of Leipzig, as to the palpability of the pelvic ureters *per vaginam.* If there is anything wrong with them you feel them all the more clearly, but a normal ureter can be felt, and it helps towards the diagnosis of affection or non-affection on one or the other side. I possessed a Gruenfeld vesical speculum with an oblique glass fenestra, to use in a water-filled bladder.

But the vesical problems were still far from being solved by these minor attacks. It was one evening, as Willy Meyer of New York and I were returning to the railroad station after addressing the Philadelphia Obstetrical Society touching our common surgical interests, that the idea flashed upon me, "Why not put the patient in the knee chest posture and use an open cylindrical speculum of small diameter and examine the bladder with the reflected light of a head mirror?" I told this to Meyer who was not impressed, but, presto, the great crux problem was really solved, after all. As soon as I got back to my clinic at the Hopkins, a patient was put in position as indicated, and the Gruenfeld speculum from which the glass window had dropped out was passed through the urethra, when the whole interior of the bladder, at once dilating atmospherically, was open to a perfect direct inspection with the aid of a head mirror. From that moment the entire category of bladder diseases and of the upper urinary tracts in women became the perquisites of gynecologists through the revelations of a direct visual exploration, instrumental touch contacts, and an ability to remove bits of tissue in the urethra and bladder, including, as stated, ureters, renal pelves, and kidneys. A widely known and recognized leader in this new field has long been my close associate, Guy L. Hunner. It was my resident, Albert Stavely, who promptly suggested the catheterization of the ureters. I applied these methods successfully to a ureteral catheterization in the male bladder, with a demonstration to Dr. Keyes, Sr., in St. Luke's Hospital, New York, using a speculum suitably longer and about eight or nine mm. in diameter. I prefer to speak of diameters, because you get a better idea of size than you do in multiplying by three and stating the circumference. I got Hugh Young to give me a case over in the Hopkins, a man brought down from the ward. I passed the speculum with a good deal of difficulty — the patient was neurotic — but we could look in and inspect the air-distended bladder. I couldn't do more than that, but whatever his ailment was, it was cured by that one examination, for he left the hospital the next day!

Then I got a chance with Keyes in New York. I had written him, telling him what I could do, and he invited me up to St. Luke's Hospital. He brought me a patient. I passed my speculum in the knee-chest posture and ran my catheter right up the left ureter; the urine began to flow drop by drop. I had a similar demonstration with Thomas and Emmet and some others in one of the hospitals in New York. I put the patient up, and there was a beautiful expansion; you could see the whole bladder perfectly.

Hunner has worked splendidly and constructively on vesical ulcers.

This principle of an open air speculum intro-

duced in the knee chest posture has also proved invaluable in the examination of the emptied rectum, using specula of varying lengths and diameters, enabling one to see and discriminate between all the various conditions of the lower bowel not ascertainable by the digital examination as used up to that time (*J. H. H. Bull.*, 1894). Here came opposition to serve to incite one to further work to substantiate a position. Objection came from J. M. Mathews, well-known proctologist who declared that there were no rectal conditions he could not ascertain just as well by a digital examination.

Since then, how many cases of supposed colitis have come under inspection, only to resolve themselves into a simpler lower rectal trouble; how many unsuspected ulcerated areas has one visualized; how many polyps have been seen, and how many cancers discovered; and how interesting to note the pathological entities up near the sacral promontory or just below the brim. J. G. Carptenter of Kentucky had also made examination in a somewhat similar manner by hanging the patient up and looking down into the bowel, but the information never got abroad.

What can I say about radium, x-ray, and electrosurgery without being prolix? Robert Abbe of New York got some radium direct from Madame Curie, preceding my own first purchase in 1904 from H. Lieber and Company, a New York chemical firm. Abbe, you may remember, made some experiments on plant life and growth, as well as experiments on the human. When Louis Wickham of Paris came over in 1907 to speak before our Hopkins Medical Society, I got a further glimpse of the possibilities of radium in a wider field, and when he returned to Paris, I sent him over with ten thousand dollars to buy some for me, from the Banque de Radium. Boltwood of Yale measured it, and I found I had half the quantity paid for. It took me a couple of years to get that straightened out. I bought more in Germany, from the Tyrol, and then in 1913 went into a kind of quasi-copartnership with the United States Government. Under the supervision of Dr. Charles L. Parsons and R. B. Moore of the United States Bureau of Mines, we extracted the radium from a thousand tons of carnotite ore. The Government published a volume on the methods of extracting radium. That was the beginning of our large quantity, which is over five grams of radium, then worth $120,000 a gram.

About radium in general: I am not going to go into it in any detail. I have been exceedingly fortunate, as fortunate as in anything in my life, in having a co-worker like Curtis F. Burnam who has devoted his life to this. He has made a very careful study and record of cases. Radium has exceeded all our expectations in the great variety of diseases in which it is used effectively, occasionally, too, in relieving some malignancies which it seemed impossible even to palliate. As the expense of radium is still prohibitive it is a pleasure to record the fact of the increasing usefulness of x-ray in most fields, carrying us over into medicine, into eye diseases, as well as bone diseases and so on.

Another extraordinary development has been that of electrosurgery; while this was being worked out in Europe it was taken hold of effectively here by William L. Clark of Philadelphia who brought it to perfection, followed by George A. Wyeth of New York, to whom we have been constantly indebted. Following a book by Wyeth, Grant E. Ward and I in 1932 wrote an "Electrosurgery," in the effort to open up its various fields to the profession, exhibiting its many excellencies as a rare adjuvant in our surgical technique. A difficulty in the way of popularizing this valuable aid has been the natural mistake of viewing it simply as another form of electrocautery. There is no cautery about it. John Byrne of Brooklyn, used electrocautery with splendid results in cancer. He would take out a cancered cervix, slowly working up, and not only removing the whole affected cervix but cauterizing all the adjacent tissues. In this way he secured better results than any of the rest of us. But we were so enamoured of surgery we thought that couldn't be. Hermann Boldt took hold of Dr. Byrne's work, summarized it, and tried to show us what it was.

In conclusion: Let us lay siege to, capture, domesticate, and incorporate in our lives in all that we do, a spirit of thankfulness for gifts received; and let us also in all our relations to our fellows hold fast a sacrificial spirit of love with a salutary awareness of our own imperfections.

Conservative Treatment of Syphilis*

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Today I would prefer to discuss the "don't" of treatment has of recent years undergone much change. I previously felt that the treatment of syphilis was the province of a specialist who knew all there was to know about it. I still feel that there is a real place for the specialist, but my contact with the members of the profession has convinced me that the problem is best handled by the internist or the family physician, with the specialist being used as a consultant. Geography in many cases presents difficulties so that, in general the treatment must, even though given in outline by the specialist, be carried to completion by someone else.

My interest in this problem is further increased by the recent activities of the public health group. You are all familiar with the publicity Parran is getting for the problem. The State Health department has been quite active in this field. Recently Parran had a session in Washington — four days devoted to the problem of venereal disease. This is a splendid bit of work but it leaves certain problems untouched. There are certain fairly general rules outlined for treatment. This general plan is now presented as the Cooperative five Clinic report, and has been advocated by the Public Health Service as the treatment ideal. It has been published in pamphlet form and is obtainable from the U. S. Public Health Service. It is to be remembered that this is an ideal treatment plan. I am in complete agreement with it and yet if it is followed implicity, will inevitably in some cases present you with the unpleasant task of signing death certificates.

Here I should emphasize a point I try to make to my students, i.e., syphilis is not a venereal disease. When they ask how to treat syphilis I am forced to reply that I don't know. We do not try to teach them how to treat but rather how not to treat, and emphasize the point that each patient is an individual human being who must be treated as an individual and not made to conform to a formal treatment plan. We are treating a patient who has a chronic infectious disease. It is a general procedure that after a case has been worked up, to outline what we consider at that to be the ideal treatment for that individual. If I could show you a group of these records three to five years later you would probably be distressed to see how few of them were able to follow the treatment as outlined. For this there are many reasons — physical reactions to treatment, social and economic problems. The treatment must be balanced so as not to place an insuperable burden — either physical or financial — on the individual. All too often the burden is not only on the individual but also on one or more members of the family. This necessitates detailed information concerning the patients private affairs as well as his physical condition. Failure to appreciate this point on my part produced a sufficient emotional reaction in one of my patients that within 24 hours he developed an acute paretic break. It is a point of great concern to me and I am convinced that the careful handling of the emotional and social problems of the patient can be just as important as any specific treatment. In fact, the two points cannot possibly be separated.

As to the physical side, it is necessary to know the complete picture if the life of the patient is not to be endangered. The statement that syphilis is the great masquerader still holds and it is for that reason that I feel that the problem of syphilis is the probelm for the internist or family physician. The specialist may see the patient today but tomorrow the patient may have pneumonia or a coronary occlusion. To handle any problem therefore requires the knowledge of the real physical condition of the patient at the time of each treatment. In addition to the positive facts there are many in-

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tangible, indescribable points about certain patients which are definite and real warning signals. It may be unscientific to be influenced by these "hunches" but I can assure you from bitter experience that it pays to follow these "hunches". Many a time I have allowed myself to be talked out of my position simply because I had no facts to back up my arguments. The result has almost always been disastrous for the patient. When the patient's health or even his life is at stake these risks are not justifiable. Nor will they be until there are more efficient drugs available for the treatment of syphilis.

To return to the physical side, a careful history is essential — this must include not only complete data as to syphilis but complete in every respect with regard to all other illness. Just the fact the patient has syphilis does not prevent him having any other disease to which human flesh is heir, and after all we are treating an individual not disease.

The next procedure is a complete and careful examination. If this examination reveals other co-existing diseaes it is to be thoroughly investigated and such special examinations or methods indicated are to be followed through to completion. If the examination should show, as I saw recently, a man of 60 with inoperable carcinoma of the prostate and metastasis, it is obvious that the treatment of syphilis is not indicated unless the patient develops some active lesion of syphilis which may be benefited by treatment.

To continue, it is a routine procedure in all cases with minor exceptions to have a spinal fluid determination before deciding on any plan of treatment. This is important also from deciding on any plan of treatment. This is important also from the standpoint of prognosis as well. If the patient has primary or secondary syphilis, puncture is postponed until after six months of treatment. One procedure, however, is insisted on and this again on the basis of unfortunate experiences. This is an x-ray of the chest and is done for two purposes. Incidently it is a steroscopic x-ray. By this method we have accurate measurements of the cardiovascular stripe. This may reveal important changes due to syphilis or other disease, or, if normal, will act as a base line for accurate comparison in future years. The second and equally important factor in the x-ray is the lungs. Syphilis of the lung does not occur but tuberculosis does. It is surprising the number of cases of tuberculosis we have picked up this way,— in fact we have found more cases of tuberculosis than aneurysm, and the tuberculosis was not suspected from the physical exam.

It is also an axiom that the treatment of syphilis is not particularly good for tuberculosis. One can only speculate as to mode of action, but the results are unpleasant. I feel that I personally have been responsible for the flare up of a number of arrested cases. I feel very keenly on this point as do most people who treat syphilis. This view, however, is not shared by many tuberculosis workers, and frequently the source of much argument. I am glad to say that many of the staff members of our state sanitaria agree with me.

Now to return to our problem again. If, when all the data is complete and we find ourselves dealing with a young healthy adult who has primary or secondary syphilis and is in good physical condition and has no co-existing disease, then the treatment of the syphilis is as outlined in the co-operative clinic report, i.e., alternating courses of arsenic and bismuth, six weeks each, for a period 1½ years. Unfortunately not all patients are primaries or secondaries. In a clinic large enough that the figures are a valid cross section only 10% of the cases will fall in this group. And again, by no means all of the primaries are young healthy adults. They may be older and have all types of other disease. I saw one who was 84 years. The inference is obvious. Most of the patients have complicating disease, some mild, some serious.

The logical step from the above statement is consideration of age. If a person of 70 with latent syphilis is found, I not only believe he should not be treated, but should not even be told he has syphilis. He can be followed at intervals and if active lesions of syphilis develops, then he can be given conservative treatment. J. E. Moore says 60 years is the upper limit for conservative treatment and quite often our own practice in some of these is to lower the age group to 50.

The presence of actual active luetic lesions in this group present another problem. However,

conservatism is indicated and intravenous treatment given only if urgently indicated. Too many times the supposed luetic lesion is healed scar tissue with resulting physiological disturbance and treatment here will have no effect.

Before discussing complicating diseases I would like to express my opinion on the treatment of actual luetic lesions or rather what not to do. Gumma of the brain is rarely ever diagnosed but, if diagnosed, should be treated surgically before any anti luetic treatment is given.

Lesions of the optic nerve and retina are an indication and not a contra-indication to arsenic per se, except tryparsamide which should never be used here.

I do not believe arsenic should be used in cases of aneurysm, at least until after a year of treatment with heavy metal. Even then I do not care to assume the risk. The same is true of cardic disease. I am not convinced that arsenic is desirable here even without cardiac failure, and in the presence of failure, arsenic is contra-indicated. I believe these patients should be managed as cardiacs, and if no failure, bismuth K. I. may be given. J. E. Moore has reported 130 cardiac cases and cites the good results of fairly intensive treatment. We checked our own cases, found 110 cases which met his criteria, i.e., five year control, and found our own untreated cases did better than Moore's best treated group. We are in accord, however, that the important factor here is really digitalis and general cardiac management.

Syphilis of the liver presents a serious contra-indication to arsenic. It is to be remembered that arsenic is excreted through the liver and here again we are dealing with the common problem of syphilis,— disturbance of phsyiology.

The problems of co-existing disease are numerous. The question of age was commented on previously.

Allergic diseases, whether dermatitis, hay fever or asthma, present a real point of concern. The incidence of exfoliative dermatitis in this group is exceedingly high and as this treatment complication entails a mortality of at least 20%, we feel that arsenic is not to be used here. Patients with an allergic background are also very prone to develop the immediate or nitritoid reactions. It is much wiser to avoid arsenic here.

Infections

All the infectious diseases are a contra-indication to arsenic treatment during the febrile period. This statement holds whether it is a bacterial or filterable virus infection. I regard a common cold, herpes zoster or labial herpes just as much a contra-indication as pneumonia. If extremely necessary from the standpoint of infectivity, bismuth and potassium iodide should be used. Chronic infections are no different from the acute. I worry just as much about a chronic sinus or chronic dental infection as about the chronic pulmonary infection.

Diabetes

Mild diabetes is not a contra-indication to antileutic treatment. However, although I can offer no facts or figures, I must confess a certain hesitancy in giving these patients any intravenous arsenic. Severe diabetes are a real problem, and it comes down largely to a sense of values,— which is the more important problem, syphilis or diabetes.

Nephritis and Hypertension

These are unpleasant findings. Not only is the use of the heavy metals contra-indicated here, but arsenic also. Theoretically, arsenic is excreted through the liver rather than the kidney, yet the treatment all too often increases the kidney damage. Stokes reports cases of syphilitic hypertension and that they respond nicely to treatment. I have never seen one of these patients and I am not sure I would know how to recognize a syphilitic hypertension if I saw one.

Gastric Ulcers

During the acute phase of the ulcer, intravenous arsenic or KI by mouth is definitely contra-indicated. As a matter of fact the incidence of gastric ulcers in our patients appears exceedingly low.

Ulcerative Colitis

This condition offers a problem of uncertainty. Both arsenic and the heavy metals are capable of producing diarrhoea. As a result it is always a question whether the colitis itself or the antileutic treatment is responsible for the symptoms.

Pulmonary Infections

Whether acute or chronic, tuberculous or non-tuberculous, these are the cause of great concern. All four groups are infectious processes and the chance of exfoliative dermatitis from arsenic is

greatly increased. Bismuth is the drug of choice here, though even bismuth is capable of causing trouble in the tuberculosis cases. David Smith of Duke, however, advocates the use of arsenic in the cases of lung abcess due to Vincent's organism. This is a procedure that requires considerable caution and experience for again these patients are prone to reaction and dermatitis.

Carcinoma

I think this group needs little discussion. It seems very unfair to me to treat these patients or even tell them they have syphilis, especially when the carcinoma will kill them long before the syphilis does. Occasionally a lesion may be encountered where the diagnosis is uncertain between carcinoma and syphilis, or there may be a mixture of the two. In this case a therapeutic test of a course of bismuth may be tried.

Anemias

Providing a treatment is not overdone or the anemia is not too severe and the anemia itself properly treated, these patients may be carried through. It is to be remembered that bismuth depresses the bone marrow and can produce anemia, and arsenic while stimulating in small doses, is in itself capable of producing an aplastic anemia and purpura.

Surgery

Syphilis is not a contra-indication to surgical procedure. It is recognized that trauma may play a definite role in the development of syphilis lesions such as gumma and periostitis. In the past it was felt that surgical procedures provided this trauma. However, many individuals are operated on and develop no trouble. If gumma should develop in the wound or there is non-healing, then treatment may be instituted as the situation indicates.

Psychoses

There is no reason why the various psychoses should not be encountered in luetic patients. In some the differential diagnosis with paresis may be difficult and particularly if there is meningovascular syphilis. The psychoses of these cases should be handled as any other similar psychoses, and the treatment should be as the individual problem indicated. Syphilophobia, however, is a problem that will tax one's ingenuity. I would rather treat syphilis than syphilophobia.

Treatment reactions are worthy of consideration. They may be divided into several classifications, i.e., arsenic or heavy metal, early and late arsenical reactions, and physiological, that is the herximer or therapeutic shock and the therapeutic paradox. With arsenic one encounters the more serious reactions from mild infiltration to fatalities.

Pain up the course of the vein during or just after the treatment is fairly common, especially after old salvarsan. Changing the drug may be of help here. Again during the injection one may encounter the nitritoid reaction with its vasomotor disturbance, back pain, difficulty in breathing. They may be mild or severe, may be controlled to a fair extent with three minims of adrenalin, or they may cause such back pain as to require morphine and hospitalization. The pulmonary oedema and cyanosis here cause much concern. I have seen plenty of them and I am even more frightened of them now than the first one I ever saw. For the first one I was just plain frightened because I didn't know what to expect. Now I am more frightened for I do know what to expect. The cause of these reactions is not clear. They suggest allergic reactions, yet my own feeling is that part distress is the result of multiple capillary emboli as a result of the agglutination of red cells. Microscopic hematuria is to be found after one of these reactions. Angioneurotic oedema and urticaria may occur during or immediately following a treatment. There is little doubt that these are allergic reactions. My own feeling is that these are sharp warning signals and are essentially contra-indications to further arsenic.

Nausea and vomiting may be found in a certain group. These may be helped by cutting the dose or changing to another form of arsenic. If this fails to give relief, then I believe arsenic should be avoided or used only with great caution.

Dermatitis

This may be a mild erythema and pruritis which clears in a few days or it may go on to exfoliative dermatitis. There is no relation to the number or size of doses but there is a sharp relationship to allergic tendencies and to infections. These are serious problems as the mortality is 20 to 25%. The death is, in these cases, due to suffocation and not to pneumonia as stated in the literature. What happens is that the exfoliative process involves the whole res-

piratory tract, including the alveoli, resulting in the blocking of the air spaces. The signs on physical examination are, however, those of pneumonia. The uremia, however, that may also occur is real — the result of the same exfoliative process involving and destroying the function of the glomeruli and tubules. The bladder is also involved in the exfoliative process as is the conjunctiva and mucous membrane of the mouth. I am convinced that many of the so called cases of bismuth stomatitis are actually arsenical in origin. In all of these cases of dermatitis from urticaria to exfoliative dermatitis if they should live, arsenic, or whatever drug may have caused it, is permanently and completely contra-indicated. I would rather have a live patient with syphilis than a dead "cure." Incidentally, I might say here that I do not like to use arsenic at all in cases of leukoplakia whether due to syphilis or not, and in syphilitics who have psoriasis. The former are likely to become malignant and the latter likely to develop exfoliative dermatitis.

Jaundice

This is a late complication, that is it may develop 4 to 6 weeks after the last intravenous treatment. The diagnosis is not easy — catarrhal jaundice, syphilitic jaundice resulting from a treatment lapse, or a true toxic reaction from arsenic. Irrespective of diagnosis arsenic must be stopped for at least 4 to 6 months. The immediate treatment is a low fat and high carbohydrate diet with a daily sline laxative; if treatment must be given here, use bismuth.

Potassium iodide is regarded by most people as innocuous. May I warn you again about its action in tuberculosis and hyperthyroidism? It is capable of causing considerable gastric distress. In addition, there is a point which is not mentioned in the literature or text books on pharmacology. Potassium iodide is perfectly capable of producing a typical angioneurotic oedema, which will only get worse if the drug is continued. Another point of concern is that a number of people feel dubious about its use in nephritis due to retention of the potassium iron.

Bismuth and mercury have the same general constitional reactions of toxicity, bismuth less than mercury, i.e., gingivitis, stomatitis, diarrhoea, nephritis and anemia of the secondary type. I should have commented that arsenic can produce all of these and in addition produce aplastic anemia and purpuric manifestations. Another point not always mentioned in the text books is that prolonged use of the heavy metals can and will produce anorexia, loss of weight and sharp mental depression. Fortunately these will clear with rest from treatment and general hygienic measures. As to the form of the heavy metal our own policy is no mercury by mouth or injection, but by inunction only. If possible we prefer to use bismuth rather than mercury. According to the pharmacologists the soluble forms of bismuth are the more desirable but the clinician who has tried them all prefers the insoluble bismuth salicylate in oil. The soluble form may not give the painful hips, but it means three doses per week instead of one, and with greater danger of toxic reaction and less results in the way of clinical cure.

I hope I have made my point clear, and I trust you can see why I feel the treatment of syphilis is the province of the internist. I make no claims to being a syphilogist myself and I am not a dermatologist. I am intensely interested in syphilis because I am interested in infectious diseases and syphilis is a chronic infectious disease. In closing let me quote the words of my teacher, J. E. Moore, who is an internist and whom I feel knows the disease, "Above all remember you are treating a human being and not a disease."

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UNITED STATES CENSUS OF PATENT MEDICINE SALES

There were 1,034 establishments in the United States primarily engaged in the production of "patent" medicine and druggists' preparations with total net sales in 1935 of $292,681,000, according to a census recently conducted by the U. S. Department of Commerce. The census did not include "compounds or products handled by the pharmaceutical trade and not sold under trade marks or proprietary labels such as serums, vaccines and toxins."

The Journal of the American Medical Association, May 29, 1937, issue points out that the total sales reported are almost one-fourth of the amount which the Committee on the Costs of Medical Care calculated is paid annually to physicians in private practice.—*O. St. Med. Jour., July*, 1937.

Chemical Transmission of Nerve Impulses and Neuromimetic Drug Action†*

LOUIS SANFORD GOODMAN, M.D.

The story of the recent advances in our knowledge of the physiology and pharmacology of the autonomic and peripheral somatic nervous system is an absorbing one. So far-reaching are the implications of these discoveries for the future of medical sciences that the Nobel prize for 1936 was awarded jointly to Otto Loewi of Austria and Sir Henry Dale of England for their pioneer work.

In 1904, T. R. Elliott, a student of physiology at Cambridge, England, suggested that sympathetic nerve impulses released small amounts of an epinephrine-like substance at their nerve endings in immediate contact with effector cells, and that this substance then acted as the chemical step in the process of stimulation. He was led to this belief by the similarity between the effects of epinephrine and stimulation of sympathetic nerves, and the fact that long after sympathetic nerve degeneration, the structures previously innervated still responded in characteristic manner to the hormone of the adrenal medulla. In 1905, Langley suggested that effector cells have both excitatory and inhibitory "receptive substances," and that epinephrine caused stimulation or inhibition, dependent on which kind of receptive substance was present.

Dixon, the physiologist at Cambridge, in 1906, impressed by the similarity between the effects of vagus stimulation and the alkaloid muscarine, advanced the important idea, on insufficient experimental evidence, that the vagus nerve liberated a muscarine-like substance which acted as a chemical mediator for its impulses. Dixon noted that both muscarine and vagal stimulation produced slowing of the heart, and assumed that "excitation of a nerve induces the local liberation of a hormone which causes specific activity by combination with some constituent of the end organ, muscle or gland." He made an extract by boiling a dog's heart which previously had been stimulated through its vagus nerve, noted that this extract had a muscarine-like inhibitory action on frog hearts, and that this inhibition was completely prevented by atropine. We now know that this substance could not possibly have been the chemical mediator of vagal impulses. The universal skepticism with which his idea was received discouraged Dixon from continuing this promising line of experimentation.

In the same year, 1906, Reid Hunt of Harvard reported his studies on a number of choline esters, and the extremely potent compound, acetylcholine. In 1914, Dale thoroughly investigated the pharmacological effects of acetylcholine, and noted the remarkable fidelity with which it reproduced the effects of parasumpathetic nerve stimulation. He was impressed with the brief duration of its action and supposed that an esterase in the body rapidly hydrolyzed it to the much less active substance, choline. Atropine abolished these acetylcholine actions.

The Vagus-Substance

The real proof of the chemical transmission of the effects of autonomic nerve impulses by the peripheral release of specific chemical stimulants was supplied by the brilliant researches of the Austrian pharmacologist, Otto Loewi, starting in 1921. Loewi gives an interesting account of the origin of these epochal experiments. He awoke suddenly one night with the fully developed conception that if the vagus nerve to a perfused heart were stimulated, it might release a chemical substance into the perfusate, which, when placed in contact with a second heart, might cause typical vagal slowing of the latter. He scribbled his plan on a piece of thin paper and went back to sleep. The next day, he could not read what he had written and knowing it was important, puzzled over it, but without success. That night he again awoke and this time with a clear recollection of the experiment. He then

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performed his classical studies on frog hearts, often repeated since, and discovered his "*vagus-substance*," or "*parasympathin*". He also noted that an accelerator substance similar to epinephrine was liberated into the Ringer's fluid when the action of the sympathetic nerves in the frog's vagus predominated. Loewi's observations were not immediately confirmed, but were later fully corroborated and now are universally accepted. The probable reason for this lies in the fact that frogs' hearts were used. The cardiac branch of the vagus, as already suggested, contains in this species a sympathetic component, the accelerans. Stimulation of this mixed nerve, therefore, sometimes causes inhibition, occasionally acceleration. Results vary with the frog and with the season of the year. In the winter, inhibition predominates; in the summer, acceleration. The exact opposite is true of the toad.

In 1927, Ryland duplicated Loewi's frog experiments in rabbits' hearts by means of saline perfusates. Feldberg and Krayer in 1933 amply confirmed Loewi's results using *intact* cats and dogs, and the sensitive leech muscle to detect the presence of the vagal hormone. Their work and the work of Dale, Feldberg and others on the mediation of nerve impulses to the stomach, bladder, and other organs establish beyond question the functional role of acetylcholine in the craniosacral autonomic system of warm-blooded animals.

Still another important observation was made by Loewi and Navratil (1924) when they found that atropine prevented the slowing of the first heart, but did not hinder the liberation into the perfusion fluid upon vagal excitation of the specific chemical transmitter which slowed the second heart. Navratil (1927) later showed that ergotoxine prevented the speeding of the first heart from accelerans stimulation, but did not interfere with the liberation into the perfusate of the chemical substance which accelerated the second heart.

These phenomena, noted in the heart, have been duplicated in other organs of the body. Stimulation of nerves to smooth muscles and glands causes chemical substances to appear in neighboring fluids which impart to them sympathomimetic and parasympathomimetic properties. For example, Englehart (1931) showed that the impulses over the short ciliary nerves to the iris and ciliary body liberated a chemical at the fiber terminals. In the eserinized rabbit, he found that stimulation of these nerves electrically or reflexly by light causes the appearance of "parasympathin" in the aqueous humor of the eye. The humor after such stimulation was now endowed with the ability to inhibit the toad heart and elicit other acetylcholine responses. Stimulation of the cervical sympathetic nerves causes an epinephrine-like chemical to appear in the anterior chamber (Bacq. 1931, 1933). Again, stimulation of the chorda tympani causes a substance to appear in the effluent from the submaxillary gland which inhibits the heart, depresses the blood pressure, stimulates peristalsis, and excites salivary flow. Many other instances are now known proving beyond doubt the chemical transmission of nerve impulses.

The "vagus substance" of Loewi was shown by Witanowski (1925) to be physically and chemically similar to, if not identical with, acetylcholine, because like the latter it is dialyzable, stable in acid medium even on boiling, but not in alkaline medium, soluble in alcohol but not in ether, rapidly rendered inactive by a blood or tissue esterase, and has its activity restored by acetylation. Both substances are protected from inactivation by physostigimine, and atropine blocks the actions of the transmitter as well as those of acetylcholine.

Acetylcholine exists in tissues in a form which is inactive, non-diffusible, and insusceptible to esterase destruction. For example, the auricle of the heart contains more than sufficient acetylcholine to cause cardiac arrest were it in an active form. Likewise, the auricle contains more of the chemical and more of the esterase than the ventricle, probably because the vagus is distributed mainly to the auricle in mammals. Nerve stimulation, however, liberates acetylcholine in an active and diffusible form which is readily attacked by the esterase. Tissue acetylcholine in structures supplied by parasympathetic nerves exists as long as the innervation is intact. For example, the ciliary body of the eye is rich in this ester, but the latter disappears when the third cranial nerve is cut and degenerated.

Sympathin

The transmitter of sympathetic effects has been studied and elucidated over a period of years especially by Cannon and his collaborators. This sympathetic agent has been named "*sympa-*

thin" in order to avoid any premature implications as to its chemistry. No drug analogous to physostigmine is needed to enhance or preserve its actions. In many of its pharmacological properties, and perhaps also in chemical structure, sympathin closely resembles epinephrine. Yet there are certain important differences, and a study of these led Cannon and Rosenblueth to postulate that two types of sympathin are formed, E (excitatory) and I (inhibitory),— dependent on the type of receptive substance which sympathin, released at sympathetic endings, finds and combines with in the effector cells. Sympathin E would be formed in effector organs such as the heart and blood vessels which are excited by sympathetic impulses; sympathin I would be liberated from those structures such as the intestines, urinary bladder and bronchi which are inhibited by sympathetic nerves. These sympathins are then released into the blood stream and retain their specificity of action on distant organs, and reinforce the effects of sympatho-adrenal discharge. This concept, however, has no analogy in the parasympathetic system, where acetylcholine produces its characteristic actions on all cells which are sensitive to it, regardless of whether it was released by inhibitory or augmentory nerves.

The evidence that sympathin is similar to, if not almost identical with, epinephrine consists in the fact that their pharmacological and chemical properties are very similar. Both have sympathomimetic effects which are enhanced by cocaine (Rosenblueth and Schlossberg, 1931) and nerve degeneration. Chemical evidence is meager as yet, but both substances give similar colorimetric tests (Viale color reaction; green fluorescence with strong alkali and oxygen), and are easily destroyed by alkali, and eosin and exposure to ultraviolet irradiation. Sympathin and epinephrine differ in several respects but mainly in regard to their responses after ergotoxine, a fact which led Cannon and Rosenblueth to the hypothesis of the two forms of sympathin which are described above. Sympathin E elicits a rise in blood pressure after ergotoxine, whereas adrenaline causes a fall. Despite the many criticisms and objections which have appeared to the theory of two sympathins, it would seem that no other explanation thus far offered so well fits all the experimental observations.

Cholinesterase and Autonomic Organization

The substance in the blood and tissues which destroys acetylcholine has all the characteristics of a ferment. It is destroyed by heat at 56° C., and by exposure in salt solution to ultraviolet light. It has been named cholinesterase because of its apparent specificity for the esters of choline. The amount of cholinesterase varies in different species, and man possesses more than other animals. A wide variety of pathological conditions in man does not seem to alter the blood esterase of which there is always an abundance. The only circumstance which changes the esterase value is the administration of physostigmine and related drugs, after which the value is temporarily lowered due to inhibition but not destruction of the ferment.

The difference in functional organization between the sympathetic and parasympathetic nervous system is due to three circumstances. First and perhaps foremost is the existence of sufficient cholinesterase in the blood and tissues to keep the action of acetylcholine quite localized at parasympathetic nerve endings. Acetylcholine is rapidly destroyed locally, and does not have an opportunity to enter the blood and circulate to distant parts. Sympathin, in contrast, is not rapidly destroyed, and is carried by the blood stream to other regions where it cooperates with epinephrine and exerts its influence for many minutes. Secondly, there is no special glandular factory for acetylcholine production such as the adrenal medulla provides for epinephrine. Thirdly, the parasympathetic ganglia are situated in very close proximity to the effector organs which they innervate, whereas the sympathetic ganglia are quite distant from the terminal effectors. One preganglionic sympathetic fiber may synapse with a score or more postganglionic neurones and in this way greatly increase the area of nerve impulse distribution. Thus, the entire neurochemical composition of the sympathetic system is adapted for diffuse discharge or nerve impulses, and release of epinephrine and sympathin. The organization of the parasympathetic system is devised for purely local responses. Cannon has emphasized that the diffuse discharge of the sympatho-adrenal system is a protective mechanism in the animal's economy, producing related adjustments of body processes in response to changes in the external

or internal environment. Diffuse discharge of the parasympathetic system could serve no useful purpose and would result only in unrelated bodily changes. The instability of acetylcholine is the major protection against any such diffuse parasympathetic discharge.

Chemical Classes of Nerves

While it is generally true that peripheral parasympathetic actions are mediated by liberation of acetylcholine, and peripheral sympathetic effects by Sympathin E and I, certain noteworthy exceptions have been found. For example, the sweat glands in the cat, though innervated by postganglionic sympathetic fibers, release acetylcholine when the latter are stimulated. This perhaps explains the peculiar reaction of sweat glands to autonomic drugs. Likewise, some sympathetic and other nerves to certain vascular beds act through the acetylcholine mechanism and cause vasodilatation. In order, therefore, to name nerve fibers and impulses in functionally descriptive terms according to their chemical activity, which no longer can be regarded as corresponding to their anatomical origin, Dale has employed the terms "*cholinergic*" and "*adrenergic*". Instead of referring to parasympathetic and sympathetic nerve fibers, one should now speak of "cholinergic" and "adrenergic" nerve fibers.

Within the last four years, investigators have sought for chemical transmitters in autonomic ganglia, peripheral somatic motor and sensory nerve fibers, and in the central nervous system itself. Acetylcholine is now known to be concerned with the synaptic transmission in sympathetic ganglia, and thus sympathetic preganglionic fibers are "cholinergic." This explains certain nicotine-like ganglionic actions of acetylcholine, which, like nicotine, stimulates ganglia in relatively small doses but paralyzes them when its concentration is high. It is very likely that synaptic transmission in parasympathetic ganglia is also by means of acetylcholine.

Skeletal Muscle Neuropharmacology

Perhaps one of the most significant advances in this entire field is that recently made by Dale, Feldberg and collaborators in demonstrating that spinal nerves to skeletal muscles are also "cholinergic." Acetylcholine is therefore concerned with the nervous excitation of voluntary muscle end-plates. In recent months it has been possible to show that this chemical when perfused directly into skeletal muscle in very minute amounts is capable of reproducing in all details the type of contraction resulting from electrical stimulation of motor nerves.

This discovery has done much to clarify the pharmacology of skeletal muscle. The actions on voluntary muscles of such autonomic drugs as physostigmine and nicotine were for a long time at variance with the bulk of evidence which was strongly against any autonomic innervation of these muscles. This dilemma is now resolved by the fact that spinal motor nerves function through the acetylcholine mechanism.

It appears that both smooth and skeletal muscles are made to contract by the liberation of the same chemical substance at nerve endings. This is true in spite of the physiological differences between smooth and skeletal muscles. Whereas the latter fibers possess a propagated disturbance which insures rapid conduction, are electrically excitable and follow the all-or-none law, smooth muscle fibers show none of these properties.

Elliott suggested 30 years ago that the conducted disturbance of skeletal muscle is the physiological equivalent of the postganglionic nerve impulse. There is good reason today to believe that this is true. The neuromuscular junctions of voluntary muscles then become analogous to the synapses in autonomic ganglia. Curare and nicotine act on both of these structures. Physostigmine likewise enhances the actions of acetylcholine on both autonomic ganglia and motor end plates. As far as is now known, the pharmacology of autonomic synapses is similar in all respects to that of the junctions between spinal motor nerves and skeletal muscle. Both structures are relay sites between two waves of impulse conduction, and acetylcholine is the chemical mediator.

It now becomes apparent why this synaptic action of acetylcholine at ganglia and motor end plates has been called "nicotinic". It is merely because its action at these points resembles that of the alkaloid nicotine. On glands and smooth muscles, however, acetylcholine acts like the alkaloid muscarine. The nicotinic and mus-

carine-like actions of acetylcholine are beautifully illustrated in the same organ in a primitive fish known as the tench. This fish has an intestinal tract composed of two coats,— an outer striated muscular tube and an inner smooth muscle tube. Both are supplied by the vagus nerve. When atropine is given and the nerve stimulated, the smooth muscle tube does not respond because the muscarine action of acetylcholine is blocked by the atropine. Only the quick component of contraction due to the unaffected striated muscle is present, since atropine has no paralyzing action on the nicotinic effect of acetylcholine. If now curare is given instead of atropine, and the vagus nerve is stimulated, the skeletal muscle is paralyzed because curare blocks nicotinic responses. Only the slow component of contraction due to the unaffected smooth muscle is present, since curare has no paralyzing effect on the muscarine action of acetylcholine. When both atropine and curare are given, nerve stimulation is completely ineffective and the intestine is quiescent.

Myasthenia Gravis

The clinical significance of these advances in skeletal muscle phramacology seems remote indeed, until we recall that already several neuromuscular diseases including myasthenia gravis and myotonia congenita are yielding to effective therapy based on a clearer understanding of the probable underlying disturbances. In myasthenia gravis, for example, the muscle weakness may be due to any one of four possible factors: (1) a deficiency in the amount of acetylcholine produced at motor nerve ends, (2) an increase in local cholinesterase, (3) the existence of some second substance with a curare-like action, and (4) a raised muscle threshold. Physostigmine, prostigmine and related drugs increase the effective concentration of acetylcholine by preventing the esterase from destroying the chemical mediator. Pharmacologically at least, myotonia congenita appears to be the exact opposite of myasthenia gravis. Recently, familial periodic paralysis has been found to yield to potassium salts, the actions of which will be discussed later. Clinical fruit is thus appearing on what was at first a purely academic tree.

Secretion of Epinephrine

The splanchnic nerve fibers to the adrenal medullary cells are in reality preganglionic fibers direct from the central nervous system, and stimulate the secretion of epinephrine through the release of acetylcholine. Thus these anatomically sympathetic fibers are in fact "cholinergic." This is especially interesting because the adrenal medullary cells are modified neuroblasts, embryologically equivalent to sympathetic ganglion cells, and we have noted above that all autonomic ganglion cells receive their stimulation through acetylcholine released by preganglionic nerve impulses. Intravenously injected acetylcholine will cause the adrenal medulla to secrete epinephrine, the same as if the splanchnic nerves had been stimulated; and as one might predict, such nerve stimulation causes both acetylcholine and epinephrine to appear in the blood leaving the gland.

Sensitization by Nerve Degeneration

Many interesting facts, some of them with direct clinical applicability, have come from the re-examination in the light of newer knowledge of the phenomenon of the sensitization of muscles and glands produced by degeneration of their nerves. When the autonomic nerve to an organ is cut and degenerated, that organ responds more readily than before to minute amounts of the normal chemical mediator. An example of this is seen in what has come to be known as the "paradoxical pupillary reaction" (Langedorf, 1900). It consists in the wide dilatation of the pupil under certain conditions on the side where the superior cervical ganglion has been removed. This was first described in 1855 by Budge, but it was not fully appreciated until many years later (Elliott, 1905, 1912) that sympathetically denervated structures are excessively excited by epinephrine. This phenomenon is well seen in the smooth muscle of blood vessels in man (Freeman, et al, 1934) and has recently resulted in the alteration of the type of sympathectomy performed for certain peripheral vascular disturbances. For example, a surgeon performed a cervicodorsal sympathetic ganglionectomy on a woman for Raynaud's disease with apparently good immediate results. Several days later, he demonstrated the case to a group of medical students and noted to his surprise that when he pulled back the bedclothes the patient's hands were blue and cold. A few hours later, he revisited the patient alone and the hands were now warm and pink. The patient's excitement due

to the visit of strangers caused sympathoadrenal discharge and the sensitized blood vessel walls responded with vasoconstriction to the epinephrine and sympathin thus released.

Preganglionic neurectomy does not sensitize peripheral structures in this manner and is now the operation of choice. It can be shown experimentally nevertheless that ganglia also becomes more sensitive to their natural chemical mediator acetylcholine, when their preganglionic fibers are cut. But we have seen that the body does not permit acetylcholine to circulate at random, so fortunately this fact of ganglionic sensitization is not likely to have any adverse clinical reverberations.

Not only are structures supplied by adrenergic nerves capable of being sensitized to epinephrine and sympathin after nerve degeneration, but also organs supplied by cholinergic fibers become sensitized to acetylcholine. The case of sensitization of ganglia has just been mentioned. This likewise holds true for smooth muscles and glands, and for the skeletal muscles. In regard to the latter, Vulpian in 1863 noted that when the hypoglossal nerve to a dog's tongue was cut and degenerated, the tongue muscles could be caused to contract slowly by stimulation of the lingual nerve. Rogowicz (1885) noted a similar phenomenon in the facial muscles, and Sherrington (1884) in the muscles of the hind leg. Many erroneous explanations were advanced from time to time. It is now known that these contractures are produced by acetylcholine leaking onto the denervated striated muscles. It is produced locally by the stimulation of the cholinergic vasodilator fibers supplying blood vessels in the muscles. Skeletal muscles therefore are sensitized to acetylcholine when their somatic motor innervation is interrupted.

The mechanism of such sensitizations of denervated structures is not fully understood. Muscles become endowed with a specific sensitiveness to neurochemical mediators as the result of establishment of nerve connections. Armstrong (1935) showed that the ingrowth of vagal fibers into the embryonic heart muscle of fundulus causes the heart which was previously rather indifferent to acetylcholine to become very sensitive to the drug. After denervation this specific sensitiveness is enhanced probably due to the increased permeability of cell surface membranes caused by the degeneration of the nerve supply. Evidence for this theory lies in the fact that the sensitization is not entirely specific and that the denervated cells are rendered more permeable to a variety of stimulating agents. Exactly how sensitive they may become is illustrated by the fact that the totally denervated heart responds with acceleration to one part in 1,400,000,000 of epinephrine.

Nerve Regeneration

It is interesting to observe, as Dale has done, that one can now review the results of many early experiments on nerve regeneration and cross suturing in this new light of chemical classes of nerves. All preganglionic autonomic fibers, spinal motor fibers to skeletal muscles, parasympathetic postganglionic nerves, and some sympathetic postganglionic fibers to blood vessels and sweat glands are cholinergic. In cross-union experiments all these nerves can functionally replace each other. The postganglionic fibers of the sympathetic system are mainly adrenergic and are functionally interchangeable in regeneration experiments with all fibers of their own class. They cannot replace fibers of the cholinergic group. This explains why even motor fibers to voluntary muscle can regenerate down the path of sectioned preganglionic nerves, or postganglionic parasympathetic nerves, and establish functional connections with ganglia or peripheral effector structures. It is also obvious that cholinergic fibers greatly predominate in the body.

Autonomomimetic Drug Actions

It should be evident from this brief review that many accepted pharmacological actions of autonomic drugs must be revised as a result of the newer knowledge of chemical transmission of nerve impulses.

Dale has pointed out that it is no longer correct to say that *acetylcholine* and *epinephrine* reproduce effects of parasympathetic and sympathetic nerves, but "it is truer to say that parasympathetic nerve impulses reproduce the peripheral effects of acetycholine, because when they arrive at the nerve-endings, they liberate that substance in relation to the effector cells; and the same is true of sympathetic nerve impulses and adrenaline, with the still necessary reservation as to the chemical identity of the transmitter."

Thus, while it may be descriptive to speak of pilocarpine as parasympathomimetic and ephedrine as sympathomimetic, it is not permissable so to label acetylcholine and epinephrine, which supply in themselves the chemicals liberated by autonomic nerves.

The conception of the *site of action of autonomic drugs* also needs revision. Pharmacologists have long used the terms "myoneural junctions" and "receptive substances" to indicate the hypoethetical part of effector cells on which drugs act. In the opinion of some authorities (Loewi) it is highly doubtful whether these terms are any longer useful. It is claimed that autonomic drugs and chemical transmitters probably act directly on cells of the reacting organ, and if they act on some specific part of cells, that part is probably not differentiated histologically but only physicochemically from the remainder of the cell. Other workers (Cannon and Rosenblueth) believe however, that inasmuch as the contractile substance is probably identical in all smooth muscle cells, there must be some differentiating substance in the muscle which is separate from the contractile material, and which determines whether contraction or relaxation occurs. For example, epinephrine relaxes the intestinal musculature, and acetylcholine contracts it. It is well established that the muscle cells which contract are entirely separate cells from those which relax. Furthermore, both acetylcholine and epinephrine cause contraction in some muscles, relaxation in others. Therefore it is necessary to assume some differentiating substances in the cells which determines the responses. These substances are what Langley years ago termed the "receptive substances."

The mechanism of action of several autonomic drugs has already briefly been given. A more complete understanding can be obtained if we first review in tabular form the sequence of events by which nerve impulses lead to mechanical responses. This sequence is presented in the following scheme, which although incomplete will serve our purpose:

(1) Preganglionic nerve impulse,
(2) Liberation of Chemical mediator (acetylcholine) in ganglia,
(3) Postganglionic nerve impulse,
(4) Liberation of chemical mediator at end organs,
(5) Combination of mediator with receptive substance,
(6) Specific response of muscle or gland.

Atropine, as has been mentioned, completely blocks all the muscarine-like actions of acetylcholine (smooth muscle, heart, and glands) but has no effect on the nicotinic actions of acetylcholine (ganglia and skeletal muscle). It blocks these effects whether they are excitatory as in the intestine or inhibitory as in the heart. When, however, atropine is used to prevent the effects of parasympathetic nerve stimulation, it is not nearly so successful and often fails outright. Although it will block even in small doses cardiac slowing and salivary secretion produced by vagal and chordal tympani stimulation, atropine will not block even in large dosage the contraction of the gut and urinary bladder. One can reasonably inquire why atropine should be so effective against acetylcholine and impotent against nerve stimulation, since the latter acts through the acetylcholine mechanism. The explanation lies in the fact that atropine probably produces a block between steps 4 and 5 in the above scheme, that is, it prevents acetylcholine from penetrating the cell and reaching the site of action. This is true when acetylcholine is injected, but when cholinergic nerves are stimulated, the chemical is liberated directly within the cell itself, and thus atropine cannot block either the production of acetylcholine at nerve endings or its intracellular action (Gaddum, 1936). Histological support for this locus of release of chemical mediators is given by the evidence of *intracellular* endings of many autonomic nerve fibers. This evidently is not the case for the heart because atropine does block vagal inhibition. We have also seen in Loewi's early experiments that he could prevent vagal slowing of the frog heart with atropine but the drug did not hinder the release of the vagus-substance which then slowed the second frog heart. The conventional textbook concept that atropine "paralyzes parasympathetic nerve endings" is no longer valid. Atropine congeners have the same mechanism of action as atropine itself.

Ergotoxine differs from atropine in that it blocks only the excitatory actions of epinephrine whereas atropine blocks both excitatory and inhibitory actions of acetylcholine. It further differs in that it blocks not only excitatory

epinephrine effects but also those of stimulation of augmentory sympathetic nerves. Atropine, it was noted above, fails to block certain parasympathetic nerve actions. It has already been remarked that Navratil found ergotoxine did not hinder the release of the accelerating substance in frog hearts when the accelerans nerve was stimulated. Ergotoxine does not prevent either the release of the chemical mediator at adrenergic endings or the formation of the two types of sympathin (E and I) by combination of the mediator with the receptive substance. Ergotoxine therefore blocks autonomic responses at a point more distal than atropine, namely, between steps 5 and 6. This alkaloid also possesses certain direct actions on contractile elements (step 6) but this is unrelated to its autonomic blocking property. The usual textbook statement that ergotoxine "paralyzes sympathetic nerve endings" is no longer true.

933*F* (Fourneau, piperidinomethylbenzodioxane), used at present only as a pharmacological tool in animal experiments, is an interesting drug because it is analogous in its action on the sympathetic system to that of atropine on the parasympathetic. This chemical blocks the effects of epinephrine but does not effectively prevent responses to stimulation of sympathetic nerves. In this latter respect it differs from ergotoxine. The locus of its action is the same as for atropine, between steps 4 and 5. In addition, 933F blocks autonomic ganglia (acting between steps 2 and 3), a property not shown by either atropine or ergotoxine.

Cocaine acts on autonomic processes by an unknown mechanism. It enhances the effects of epinephrine and postganglionic sympathetic nerve stimulation. Nerves and ganglia are apparently unnecessary for this action of cocaine for the alkaloid potentiates epinephrine even after complete nerve degeneration. It is not clear whether it protects the mediator from oxidation or whether it increases tissue permeability so that epinephrine and sympathin may more readily diffuse into cells.

Curare and *nicotine* act between steps 2 and 3, that is, they block synaptic transmission by rendering postganglionic autonomic cells insensitive to acetylcholine and to postganglionic nerve impulses. That the ganglion cells are not actually paralyzed, however, is seen from the fact that they are still capable of being stimulated by potassium salts. Nicotine may stimulate these ganglion cells before it poisons them, and it was noted above that this is why the term "nicotinic" has been applied to the action of acetylcholine on ganglia. Large doses of acetylcholine, to make the analogy complete, paralyze autonomic ganglia, and thus both agents stimulate in small doses, and "paralyze" in large doses. Under the discussion of skeletal muscle pharmacology it was pointed out that autonomic ganglionic synapses and motor end plates in voluntary muscle both share the same drug responses. Thus curare and nicotine block somatic neuroskeletal responses by acting between steps 5 and 6, with the reservation of course that all the steps in the above scheme by their very nature cannot apply to spinal motor nerves. In this peripheral action on skeletal muscle, these two potent alkaloids resemble the sympathetic action of ergotoxine because they block both the chemical mediator,— acetylcholine,— and the response to nerve stimulation. It is common knowledge that a curarized muscle will not respond to electrical stimulation of its nerve. The usual teaching that curare "paralyzes neuromuscular junctions" and that "nicotine first stimulates and then paralyzes autonomic ganglia" obviously no longer is a complete description of the actions of these alkaloids.

Physostigmine (eserine) is effective not by any direct action on nerves or effector cells but only by virtue of its ability temporarily to inhibit cholinesterase from destroying acetylcholine. It thus acts as step 2 and step 4. It likewise protects acetylcholine injected into the body. *Prostigmine* and other synthetic congeners of eserine act in an identical manner. The former teaching that "eserine stimulates parasympathetic nerve endings" is obviously quite erroneous.

Pilocarpine action has not yet been satisfactorily explained. Its highly selective effects on parasympathetic structures are definitely not due to any chemical similarity of the drug to acetylcholine, nor has this alkaloid any esterase-inhibiting property like eserine. It would appear that its locus of action is directly at step 6, for it elicits the same muscular and glandular responses after complete denervation.

Acetylcholine has been introduced into therapy within the past few years. Its actions have been sufficiently discussed in the preceding para-

graphs. *Acetyl - betamethyl - choline* (*Mecholyl*), *carbaminoylcholine* (*Doryl or Lentin*) and other synthetic congeners of acetylcholine have been prepared by pharmacologists to obtain drugs which are less evanescent in action than acetylcholine, which have fewer nicotinic properties, and which can be given orally. In the body they act similar to acetylcholine but are broken down more slowly by cholinesterase and apparently show more or less selective actions on particular combinations of parasympathetic structures.

Ephedrine, benzedrine, tyramine and other sympathomimetic agents are closely related to epinephrine and this may account for their autonomic actions. That their mechanism is different from that of epinephrine, however, is indicated by the failure of ergotoxine to reverse their pressor effects, by the absence of cocaine potentiation, and by the failure of these drugs to act after nerve degeneration. There is some evidence that they may produce their effects by liberating the chemical transmitter from the depots at nerve endings.

Potassium ions occupy a peculiar pharmacological role by their ability to stimulate autonomic structures. In 1906, Howell noted that potassium salts produced a vagus-like inhibition of the heart, and found that vagal stimulation increased the amount of potassium in the heart perfusion fluid. The conclusion which he drew was the that vagus inhibits the heart by liberating diffusible potassium, but this is now known to be incorrect. While it is true that potassium is freed by both vagal stimulation and acetylcholine, it is not freed in this manner when atropine is previously administered. It therefore appears that potassium is liberated in the heart only after acetylcholine has acted, and when the latter is prevented, as by atropine, no potassium appears. This does not exclude the fact that potassium can cause heart slowing, but the appearance of potassium is dependent on acetylcholine, not a substitute for it. In the propagation of nerve impulses in preganglionic fibers, on the other hand, potassium ions are mobilized in the nerve fiber, momentarily appearing outside the fiber and then passing in again. Their temporary appearance at the nerve terminals may be the first link in acetylcholine release at synapses. This suggestion is supported by the fact that small amounts of potassium in perfusion fluids stimulate autonomic ganglia, potentiate submaximal nerve impulses, and cause acetylcholine to appear in the effluent. Not only does potassium liberate acetylcholine at innervated ganglia, but it also stimulates denervated ganglia to discharge without demonstrable release of acetylcholine. It is also capable of stimulating curarized ganglia, and in large doses will paralyze ganglia. Finally, potassium when added to perfusion fluid causes acetylcholine to appear at the endings of cholinergic nerves to smooth muscles and glands. The neuromimetism of ions of potassium is not yet fully understood, nor is it known what part they play in the normal physiology of the visceral nervous system.

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In conclusion, it should perhaps be emphasized that these advances have come about in a relatively short period of time, and yet have already profoundly affected our knowledge of the physiology of the visceral nervous system, revised our conception of autonomic drug actions, introduced new therapeutic agents, and permitted a fresh attack on certain diseases. It is clear that the old distinctions between the sympathetic and parasympathetic portions of the nervous system are no longer valid, and that we must think instead in terms of the type of chemical substance released by nerve impulses. Indeed, it now appears that there is no sharp distinction between visceral and somatic motor nerves, and that both act through chemical mediation of their impulses. At present, numerous investigators are attempting the extension of these basic findings into the realm of the somatic sensory and central nervous systems. Chemical transmitters and enzymes other than acetylchoine, sympathin, and cholinesterase may exist and await discovery. Isolated facts, too new to mention here, already give strong indication that the next few years will witness some profound changes in our knowledge of the transmission of impulses in the brain and spinal cord. When that time arrives, we will have a clearer understanding of many drugs acting on the central nervous system, and answers to such perplexing problems as the action mechanism of anesthetics and hypnotics, the specificity of such chemicals as strychnine and the respiratory stimulants, the central action of many autonomic agents including atropine and benzedrine, and many similar unsolved questions. The possible clinical and

therapeutic ramifications of these discoveries would tax the sturdiest imagination.

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GREENWICH HEALTH FIELD DAY

On September 15 Greenwich celebrated with a Health Field Day in recognition of its having received a First Award for 1936 in the Inter-City Health Contest sponsored by the U. S. Chamber of Commerce. This mobilization of Public Health forces was for the purpose of furthering interest in personal and public health and hygiene.

The main dining room of the Pickwick Arms was filled to overflowing at noon, while each of the forenoon and afternoon sessions was well attended by lay and professional people from Greenwich and its environs. The program included papers by such eminent authorities as Charles Gordon Heyd, M.D., President of the American Medical Association, John L. Rice, M.D., Health Commissioner of New York City, Joseph I. Linde, M.D., Health Commissioner of New Haven, Ira V. Hiscock, M.D., Professor of Public Health, Yale University; Stanley H. Osborn, M.D., Health Commissioner of Connecticut; William L. Weed, D.D.S., President of State Dental Commission; Sanford H. Wadhams, M.D., Director of Connecticut State Water Commission, and Raymond Squier, M.D., Executive Secretary of the National Committee on Maternal Health.

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PART-TIME DOCTORS IN THE SCHOOLS

Professor Jesse F. Williams of Teacher College, Columbia, urges the employment of specially trained child health examiners rather than "part-time doctors" among the school children. Professor Williams believes that these part-time physicians fail to study the school problem and that they are merely interested in temporarily supplementing their own incomes. For this particular field of work physicians trained in preventive medicine should be employed as they alone have the ability to recognize signs and symptoms of disease and defects and will have the responsibility for conducting educationally sound health examinations.—*N. Y. Jour. Med., July* 1, 1937.

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COLORADO MEDICINE CHANGES ITS NAME

Announcement was made on October 1 of a change in the name of Colorado Medicine to Rocky Mountain Medical Journal to take effect January 1, 1938. In addition to being the official journal of the Colorado State Medical Society, the Wyoming State Medical Society, and the Colorado Hospital Association, it will now become the official publication of the Utah State Medical Association. The ownership of the Journal will remain with the Colorado State Medical Society. Utah will discontinue its quarterly journal.

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NEW MEDICAL JOURNAL

A new monthly magazine, Digest of Treatment, sponsored by the J. B. Lippincott Company, recently made its appearance. It endeavors to present to the busy practitioner a digest of the latest approved treatment. This is too early to be very critical of such a publication. It may serve a useful purpose although our friends in Missouri question very much the ultimate good that will accrue from offering the general practitioner condensations of current literature.

The Place of Cesarean Section*†

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Any obstetrical case that ends with a living, uninjured mother and baby is a success. If the baby is lost or damaged, it is a partial failure, but should the mother die, it is a tragedy. To often Cesarean section, performed for improper reasons or upon unsuitable patients, plays a sinister role in the drama of maternal mortality. In the city of Boston from 1933 to 1935 inclusive, 27 per cent of all deaths associated with the puerperal state followed abdominal delivery.[1] For the year 1928 in the State of California,[2] 24 per cent of all such deaths were subsequent to Cesarean section. During the 3 year period beginning in 1930, the rate in New York City[3] was 15.7 per cent and from 1931 to 1933 inclusive in Philadelphia,[4] it was 13.6 per cent. No city in the United States has yet presented in this regard a more unfavorable picture than that displayed by Boston.

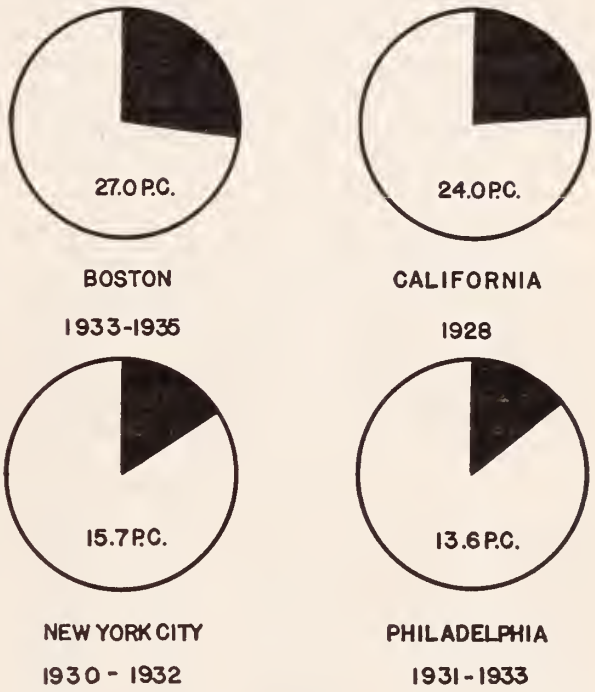


TABLE 1. The Part Played by Cesarian Secsion in total Maternal Mortality

Several factors have produced this high ratio of Cesarean section to all maternal deaths. Too great a value is placed upon the life of the unborn child. Many obstetricians, impelled either by religious motives or by fear of criticism because of possible loss of the infant, perform the classical or lower segment operation upon infected patients after many hours of labor, when the patient's safety would have been protected better by an extraperitoneal Cesarean, a Porro operation, or a craniotomy. The accoucheur often forgets that if the patient lives she may have another child, but should she die, as an individual she is irreplaceable. A second factor is the belief, shared by the laity, that Cesarean section is only another way of having a baby and that abdominal and pelvic delivery are interchangeable, or facultative, as it were. The optimistic or inexperienced operator is reassured by the published accounts of 125 or more Cesarean sections without a death, little knowing that the authors of such reports, often skilled surgeons and possessed of excellent judgment, have avoided infected or manhandled cases, and, moreover, that if they did not think it remarkable that they could perform 125 Cesarean sections without a death, they would never have written about it. The fact stands out that even in the clean case with unruptured membranes, not in labor and operated on with the best aseptic technique, there is always a certain risk of peritonitis, since in the puerperium the uterus usually harbors pathogenic bacteria which may gain access to the peritoneal cavity through the uterine wound. Because of this, the operator should weigh well the risk should he elect to deliver by Cesarean section a woman afflicted with a serious medical condition, such as heart disease or diabetes, always remembering that by so doing he is sub-

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†Read at the Clinical Congress, New Haven, Sept. 21-23, 1937.

jecting a patient already ill, not only to the hazards of a surgical convalescence but to the inescapable, intrinsic risk of death attendant upon abdominal delivery. In not a few instances Cesarean section has been performed upon multiparae who have had a number of uneventful pelvic deliveries for the sole purpose of sterilizing them. Such a practice admits of no defense, since sterilization, if it must be done, may be accomplished 3 or 4 months after delivery when involution is complete, with no more risk than attends any simple gynecological operation.

The Frequency of Cesarean Section

In reviewing the literature on Cesarean section, I have confined myself to the six year period beginning in 1931 and extending through 1936, since this time interval coincides with the analysis I wish to make of Cesarean sections at the Boston Lying-in Hospital, and covers my first 6 years as Chief of Staff at that institution.

Author	*Deliveries*	*Cesareans*	*Ratio*
Maxwell (2)	9,727	290	1:33.5
Plass (5)	91,738	955	1:96.6
Daily (6)	17,493	500	1:34.9
Seely (7)	33,988	203	1:16.7
Courtiss & Fisher (8)	31,613	1,000	1:31.6
Montgomery (9)	13,733	229	1:60
Skeel & Jordan (10)	45,650	1,047	1:44
Adams (11)	19,313	217	1:89
Whitehouse Questionnaire (12)	94,235	2,714	1:34.6
Stein & Leventhal (13)	15,136	381	1:39.7
Stander (14)	5,456	153	1:35.6
Waters & Leavitt (15)	8,852	177	1:50
Palmer (16)	6,533	157	1:41
Lull (17)	23,511	573	1:41
Sackett (18)	18,416	578	1:31.8
	435,394	9,174	1:46.4
Boston Lying-In Hospital			
1925-1930	18,393	688	1:26.6
1931-1936	20,364	584	1:34.9

TABLE 2. The Incidence of Cesarean Section

Table 2 shows the incidence of Cesarean section according to 15 American authors. For comparison is given the incidence at the Boston Lying-in Hospital for the 6 years beginning in 1925, which was 1:26.6 and for the 6 years beginning in 1931, which was 1:34.9. Although our frequency has been considerably greater than the total of the 15 authors, it does not differ greatly from that reported by Maxwell[2] from the University of California, by Daily [6] from the Chicago Lying-In Hospital, by Courtiss and Fisher[8] from the Robinson Memorial Hospital, by Stander [14] from the New York Lying-In Hospital, by Sackett[18] from the same institution prior to 1932, and that given in the report of the White House Conference. It is noteworthy, however, that we have reduced the incidence of Cesarean section by about one-third. Had we continued to perform the operation at the rate current from 1925 to 1930 inclusive we would have recorded 765 operations in the last 6 years or 181 more than were actually performed. Since our gross maternal mortality in Cesarean section in the last 6 years has been 3.1 per cent, it is conceivable that by narrowing our indications we may have avoided over 5 deaths in the past 6 years. This leads to the self evident fact that the easiest way to reduce the number of deaths from Cesarean section is to perform the operation less often.

The Mortality of Cesarean Section

The gross death rate in Cesarean section of all types as determined by compilation of 11,491 cases reported by 17 American authors is 5.8 per cent.

CESAREAN SECTION
Gross Mortality

Author	*Cases*	*Deaths*	*Per cent*
Plass (12)	2,273	134	5.9
Iowa Questionnaire (5)	1,938	168	8.7
Stein & Leventhal (13)	381	9	2.4
Skeel & Jordan	1,047	75	7.1
Montgomery (9)	229	14	6.1
Sackett (8)	578	25	4.3
Adams (11)	217	10	4.6
Lull (17)	573	39	6.8
Seely (7)	263	9	4.4
Daily (6)	500	5	1.00
Plass (5)	900	63	7.00
O'Connor (19)	429	20	4.6
Courtiss & Fischer (8)	1,000	53	5.3
Maxwell (2)	290	9	3.1
Arnot (20)	356	9	2.5
Bickell (21)	299	22	8.0
Schwarz (22)	218	9	4.1
Total	11,491	673	5.8
Boston Lying-In Hospital			
1925-30	688	27	3.9
1931-36	584	18	3.1

TABLE 3. The Maternal Mortality in Cesarean

It is interesting to compare the mortality of Cesarean section with that of other common ab-

dominal operations of equal gravity. Dean Lewis[23] gives the mortality after acute cholecystitis with operation as 3.5 per cent. Maes,[24] in Christopher's surgery, reports the death rate from operations for acute appendicitis as 2.7 per cent, while Litzenberg, in the same volume, in 1,421 cases, found the mortality in operations for ectopic pregnancy to be 2.2 per cent. Lockyer[25] reports a 1.6 per cent mortality in supravaginal hysterectomy for fibroids. If these figures are representative, they indicate, broadly speaking, that Cesarean section is about one and one-half times as dangerous as operations on the gall bladder, twice as dangerous as the surgical treatment of acute appendicitis or extrauterine pregnancy and three and one-half times as fatal as supravaginal hysterectomy for fibroids. Granting that this evidence is sound, no conscientious physician can recommend Cesarean section to his patients merely because it affords an opportunity to sterilize them, or because they desire it as a means of escaping the pains of labor, or for any other equally specious reason.

The Boston Lying-In Hospital is a semi-public teaching institution with a closed staff that delivers every year in its Hospital and Out-patient Department about 3,500 women, which accounts for approximately one-fifth of all the births in Boston. The private wing of the Hospital is regarded as a separate institution and its statistics have not been used in preparing this report. Our patients are all financially unable to employ a private physician and about 30 per cent are foreign born. Complicated cases are received from outside physicians without question. From 1931 to 1936 inclusive, there were 584 Cesarean sections performed beyond 28 weeks of gestation with 18 deaths, a gross maternal mortality of 3.1 per cent. For the 6 years previous among 638 Cesarean sections there were 27 deaths, or 3.9 per cent. In the past 6 years, therefore, we have reduced our mortality 0.8 per cent, or by about one-fifth.

The Lower Segment Operation Versus the Classical Cesarean

Of late years the lower segment operation has enjoyed a growing popularity. In table 4 is shown the comparative mortality as reported by 15 American authors in the past 6 years. It is apparent, therefore, that the lower segment operation is 4 times safer than the classical.

During the 6 year period in our clinic we have performed 372 classical operations with 8 deaths, a maternal mortality of 2.1 per cent, which is approximately one-third of that reported for the other clinics. There were 168 lower segment operations with 7 deaths, a maternal mortality of 4.2 per cent, or two and a quarter times that

	Lower Segment			Classical		
Author	*Cases*	*Deaths*	*Per cent*	*Cases*	*Deaths*	*Per cent*
Skeel & Jordan (10)	108	3	2.8	827	63	7.6
Phaneuf (26)	166	1	0.6			
Montgomery (9)	33	1	3.1	180	10	5.5
Sackett (18)	224	6	2.7	303	15	4.9
Greenhill (27)	108	0	0.0			
Lull (17)	103	4	3.8	478	31	6.7
Waters & Leavitt (15)	116	5	4.2	533	2	5.7
Seely (7)	87	0	0.0	105	8	7.6
Daily (6)	461	3	0.6	8	2	25.0
Maxwell (2)	165	0	0.0	113	7	6.1
O'Connor (19)	133	7	5.3	296	12	4.0
Courtiss & Fisher (8)	376	5	1.3	623	48	7.7
Arnot (20)	204	0	0.0	151	7	4.6
Garrison (28)				107	2	1.9
Bickel (21)	183	5	2.7	116	17	14.6
Totals	2,467	40	1.6	3,342	224	6.7
Boston Lying in-Hospital 1931-1936	168	7	4.2	372	8	2.1

TABLE 4. The Lower Segment Operation versus the Classical

recorded elsewhere. At least two deductions are possible. The first is that in the other clinics the classical operation has been utilized many times in unsuitable cases. The second deduction is that we have on occasions performed the lower segment operation upon equally unsuitable cases, and this I hasten to admit. The factors which determine the unsuitability of a case for either the lower segment or the classical operation will be considered presently. Our present preference in the lower segment operation is for the vertical incision beginning just above the cervix and extending upward a sufficient distance to allow easy extraction of the presenting fetal pole. This preference is based on a series of 4 cases in which Cesarean section by the transverse uterine incision had been employed in other hospitals and in which the scar ruptured in our institution. All 4 cases were in labor when the accident occurred, and all survived. Of these, one patient had also had a classical Cesarean, but the scar from that operation was found intact and firm. We believe that the lengthening of the lower uterine segment which occurs during labor is likely to pull apart the cicatrix of the transverse incision, but that this danger is much less if the scar is vertical.

The Clean Versus the Questionable Case

Table 5 shows that among 372 classical Cesareans there were 2 deaths from sepsis, or an incidence of 0.5 per cent, while infection caused the death of 5 women, or 2.9 per cent of the 168 patients delivered by the lower segment operation. It is apparent, therefore, that the cases subjected to the classical operation were carefully selected. On the other hand, the loss from sepsis of practically 3 per cent of the patients delivered by the lower segment operation indicates the unsafety, in our hands, of this type of Cesarean for patients who are potentially infected.

	Section		
Type	*Cesareans*	*Deaths*	*Per cent*
Lower segment	168	5	2.9
Classical	372	2	0.5

TABLE 5. Deaths from Sepsis in Cesarean Section

In an attempt to analyze this situation further I have arbitrarily divided all patients delivered by Cesarean section of both types into two groups, the clean and the questionable. A clean case is considered to be one where not more than 8 hours have elapsed since labor began or the

	Clean			Questionable		
Type	*Cases*	*Deaths*	*Per cent*	*Cases*	*Deaths*	*Per cent*
Lower Segment	72	2	2.8	96	5	5.2
Classical	324	8	2.2	48	0	0.0
Totals	396	10	2.5	144	5	3.5

CAUSES OF DEATH

Clean	Questionable
Lower Segment	**Lower Segment**
Pyemia	Peritonitis 4 A A
Pulmonary embolism A	Vegetative endocarditis A
Classical	**Classical**
Peritonitis 2 A A	No deaths
Eclampsia 2 A A	
Lobar pneumonia A	
Bronchopneumonia	
Vegetative endocarditis A	
Appendicitis A	

A = Autopsy

TABLE 6. The Clean versus the Questionable Case. Boston Lying-In Hospital, 1931-1936

membranes ruptured, where there has been not more than one vaginal examination under aseptic precautions, where there has been no attempt at operative pelvic delivery and no fever over 99.6. Questionable cases are those which do not fulfill these conditions. Table 6 shows the distribution of clean and questionable cases in our 541 classical and lower segment operations. In only three instances in the whole series was the operation performed subsequent to an attempt at pelvic delivery. It will be noted that 325 or 87.1 per cent of our 372 classical Cesareans were clean cases, and that only two of these died from sepsis, or 0.6 per cent. On the other hand, 96 or 57.1 per cent, of our 168 lower segment operations were questionable. Four, or 4.2 per cent of them died. It is apparent, therefore, that the lower segment operation does not afford sufficient safety to the woman who is undergoing a prolonged test of labor, a fact which is of the utmost importance. One derives the impression from some articles in the literature that, so long as unmistakeable evidences of infection have not appeared, the lower segment operation may be performed safely at any time during labor. This we do not believe to be the case. Trillat,[29] in an analysis of 110 lower segment operations found the mortality to be 2.3 per cent in 43 clean cases, 5.6 per cent in 53 suspicious cases, and 28.5 per cent in 14 that were febrile. O'Connor[19] reported that the mortality in this type of case was about doubled when there was a prolonged test of labor, bleeding or preeclampsia. Montgomery[9] recorded a mortality of 0.8 per cent in classical operations done before 12 hours of labor. After 12 hours, the mortality in this type was 8 per cent and in the lower segment operation 3.5 per cent. Couvelaire[30] states that in the study of 436 lower segment operations the death rate was 2.7 per cent when there was no infection and not more than 12 hours had elapsed since the beginning of labor or rupture of the membranes, 6 per cent when conditions were less favorable and 24.5 per cent when there was an elevation of temperature or some complicating pathological state.

We have come to the conclusion that a test of labor should not exceed from 8 to 10 hours, and that it should be conducted, if possible, without vaginal examination. At the end of that time the obstetrician should have reached one of two conclusions: (1) that the patient eventually may be delivered through the pelvis with safety to herself and reasonable safety to the baby, or (2) that delivery through the pelvis is extremely unlikely except at considerable risk to the mother or infant. If a Cesarean section is performed under ideal conditions it may be either of the classical or lower segment type. The lower segment operation is preferable because its published mortality is less. If the obstetrician allows his patient to undergo an extensive test of labor and conditions for pelvic delivery are still unfavorable, he should abandon all thought of either type of operation and arrange for her delivery by an extraperitoneal Cesarean section performed by some competent operator.

The Extraperitoneal Operation Versis the Porro Operation

If the uterine contents are infected, the lower segment Cesarean affords at operation no greater protection against spill and subsequent peritonitis than does the classical Cesarean. Should a peritonitis thus acquired be confined to the lower portion of the peritoneal cavity the process may localize itself and the patient survive. This is equally true if the incision is made in the lower portion of the upper uterine segment, as is the case with all our classical Cesareans. Early in the puerperium in practically every patient delivered by Cesarean section or otherwise, the uterine cavity is invaded by bacteria which may be pathogenic. This has been determined many times by uterine cultures. The utero-vesicle fold of peritoneum, which in the lower segment operation is drawn over the uterine incision, probably acts in many cases as a barrier to seepage through the uterine wound, and herein lies its greater safety. In some of our cases, however, we have found at autopsy that this barrier has not proved effective. For this reason, and because the operation provides no security against spill at the time it is performed, we do not believe that it affords sufficient security to justify its use in the questionable case.

We have performed 23 extraperitoneal Cesarean sections in the last 6 years on patients who were actually or potentially infected, with no deaths. Eighteen were Latzko operations. In five other instances the uterus was marsupialized, that is, stitched to the abdominal wall, opened, its contents evacuated, and still ventrally fixed, closed as in the classical operation

Extraperitoneal				Porro			
Author	*Cases*	*Deaths*	*Per cent*	*Author*	*Cases*	*Deaths*	*Per cent*
Burns (31)	79	2	2.5	Seely (7)	11	1	9.0
Sackett (18)	51	4	7.8	Daily (6)	30	0	0.0
Perrins (32)	22	0	0.0	Phaneuf (36)	25	0	0.0
Holtermann (33)	194	10	5.2	Maxwell (2)	11	2	18.1
Norton (34)	26	0	0.0	Lull (17)	10	4	40.0
Fleischer & Keeshner (35)	19	0	0.0	Lash & Cummings (37)	53	6	11.3
				Montgomery (9)	15	3	20.0
	391	16	4.0	Greenhill (27)	9	0	0.0
				Lazard (38)	51	4	7.8
Boston Lying-In Hospital				Arnot (20)	10	2	20.0
1931-1936	23	0	0.0	Seely (39)	17	0	0.0
					242	22	9.1
				Boston Lying-In Hospital			
				1931-1936	21	3	14.3

TABLE 7. The Extraperitoneal versus the Porro Operation

with a drain placed to the uterine incision. In Table 7 are shown the results of 391 Latzko operations appearing in the literature. Sixteen patients died, a maternal mortality of 4 per cent. This is better than the gross death rate of classical Cesarean section, regardless of the fact that all such extraperitoneal operations were performed upon potentially infected women.

How does the Latzko Cesarean compare with the Porro operation, in which the uterus is removed supravaginally and free drainage instituted? Table 7 also shows the result in 242 Porro operations taken from the literature. There were 22 deaths, or 9.1 per cent, which is over twice the mortality of the extraperitoneal operation. We have performed 21 Porro operations with 3 deaths, two from hemorrhage, and one from peritonitis, a maternal mortality of 14.3 per cent.

A word should be said about the technical difficulty of the Latzko operation, which is considerable. Extraperitoneal entry must be affected into the lower uterine segment behind the bladder, which must be displaced to the right for this purpose. Unless one is sure of his perivescial geography, he will be confused by the various thin layers of fascia which envelope the bladder and will lose his way. This organ has been torn more than once. In most cases the left ureter is exposed and may be injured. This is no operation for even the boldest general surgeon, nor in fact, for any one who has not received adequate personal instruction at the hands of an expert. Fortunately, there are several accomplished operators in Connecticut who are skilled in the performance of the Latzko operation and who have reported successful series of cases.

Fetal Mortality in Cesarean Section

One would hope that an operation which, generally speaking, carries a maternal death rate of almost 6 per cent would offer as a reward almost a 100 per cent promise of obtaining a living baby. A review of the literature shows that of 3,037 viable infants delivered by Cecarean section 257 died, a fetal mortality of 8.5 per cent. The fetal death rate at the Boston Lying-In Hospital in Cesarean section was 8.8 per cent, while the total fetal mortality in all types of deliveries, both stillbirths and neonatal deaths was only 4.1 per cent.

Boston Lying-In Hospital, 1931-1936			
Author	*Cases*	*Deaths*	*Per cent*
Stein (13)	385	19	4.93
Phaneuf (26)	169	8	4.7
Adams (11)	217	22	10.1
Seely (39)	135	10	7.4
Seely (7)	203	26	12.8
Palmer (16)	161	16	9.9
Lull (17)	576	74	12.8
Waters & Leavitt (15)	177	21	11.8
Daily (6)	500	31	6.2
Maxwell (2)	296	17	5.8
Schwarz (22)	218	13	6.0
Totals	3,037	257	8.5
Boston Lying-In Hospital 1931-1936	585	52	8.8
Fetal Mortality for all Hospital Deliveries			
Boston Lying-In Hospital 1931-1936	13,688	662	4.8

TABLE 8. The Fetal Mortality in Cesarean Section

Chief		Contributing					
		Test of Labor	*Placenta Previa*	*Premature Separation*	*Rupture Uterus*	*Maternal Heart D.*	*Maternal Toxemia*
Prematurity	16		5	1		5	1
Atelectasis	14	4	3	1		3	1
Cerebral injury	12	7	1	1		2	
Dead on admission	4		1	2	1		
Erythroblastosis	2						
Bronchopneumonia	1						
Monster	1						
Achondroplasia	1		1				
Con. heart dis.	1	1					
Totals	52	12	11	5	1	10	2

TABLE 9. Causes of Fetal Death in Cesarean Section, Boston Lying-In Hospital, 1931-1936

Surely something is wrong with a method of delivery which is accompanied by a risk of one chance in 11 or 12 of losing the baby, and in our clinic at least, doubles the general fetal death rate. If the operation is done to save the baby, it seems on occasions to be most unsuccessful.

Table 9 shows that the three chief causes of infant death in Cesarean sections are prematurity, atelectasis, and cerebral injury. The 3 leading contributory causes of death are the test of labor, maternal heart disease, and placenta previa. An improvement is possible as regards infant mortality if elective Cesarean sections are postponed until after the 36th week of pregnancy. Since the test of labor was a factor in about one-fourth of our fetal deaths, it is evident that better results may be obtained if trial labors are restricted to from 8 to 10 hours. Too often in the past they have been endurance contests in which the mother, the baby and the obstetrician all took part.

How Does Cesarean Section Compare With Pelvic Delivery as Regards Maternal and Fetal Mortality

Table 10 shows the comparative gross maternal mortality according to various methods of delivery during the 6 year period at the Boston Lying-In Hospital. If we select those forms of operative delivery with which Cesarean section usually competes, that is, high forceps, craniotomy, version, breech extraction and mid-forceps, we have a total of 723 such operations with 6 maternal deaths, or 0.8 per cent. Our mortality in Cesarean section was about four times greater. On the other hand, the fetal deaths in these more serious forms of pelvic delivery numbered 184, a rate of 25.4 per cent. Cesarean section, therefore, is about 3 times safer for the infant. In cases where there is a fair choice between pelvic delivery and Cesarean section one should consider well the increased risk to the mother, who is vastly more important

	Maternal			Fetal	
Delivery	*Cases*	*Deaths*	*P. C.*	*Deaths*	*P. C.*
Cesarean Sect.	584	18	3.1	52	8.8
Craniotomy	16	0	0.0	16	100.0
High forceps	9	0	0.0	4	44.4
Version	106	1	0.9	30	28.3
Breech ext.	493	4	0.8	122	24.5
Mid forceps	90	1	1.0	12	12.0
Low forceps	3,020	14	0.5	78	2.6
Normal	9,351	21	0.2	348	3.7

TABLE 10. Maternal and Fetal Mortality According to Method of Delivery Boston Lying-In Hospital, 1931-1936

than the infant, before one performs an operation which gives the baby an advantage, even though that advantage be three-fold. When Cesarean section can be performed in large clinics over a period of years with a maternal mortality of less than 1 per cent, it will be time to broaden the indications, but not before. Note also that of the 12,371 women delivered normally or by low forceps only 38 died, a mortality of 0.3 per cent, which speaks well for conservatism. The fetal mortality in this group was 3.5 per cent, or less than half of that in Cesarean section.

Indications

In Table 11 appear the indications for our 584 Cesarean sections. While mistakes in judgment have undoubtedly been made, I do not believe that any of our indications are obviously indefensible. It will be noted that 84, or about 1 in every 11 operations were done because of a previous Cesarean section. When the previous Cesarean has been performed in our Hospital for a temporary indication, such as placenta previa, inertia, or disproportion, and the convalescence has been afebrile, we are disposed to allow the patient to go through labor under careful supervision. On a number of occasions we have been rewarded by a simple pelvic delivery. On the other hand, when the operation has been done in another hospital, we usually repeat the Cesarean because we do not have direct information concerning the patient's convalescence. Our present belief is that if the operation has been well performed and there has been no infection the uterine scar may be expected to stand the stress of an ordinary labor.

The indications for hemorrhage need no explanation. It should be said that we attempt to limit the operation in placenta previa and premature separation of the placenta to cases in which the child is living and within the last month of gestation, since we believe that under other circumstances equally good or better results for the mother may be obtained by more conservative measures.

Among other indications will be noted preeclampsia, which was the reason for the operation in 63 cases, and rheumatic heart disease, which accounted for 42. We are attempting to limit Cesarean section in preeclampsia to cases in which the cervix is not suitable for undiction of labor by rupture of the membranes, or where some other complicating factor holds, such as cephalo-pelvic disproportion or elderly primiparity. We have also found that medical treatment is more effective in bringing a cardiac patient safely through her pregnancy than is a surgical delivery. Most women with heart disease, if kept in bed during the last two or three months of their pregnancy, may appar-

1. Dystocia		2. Hemorrhage		3. Other Indications	
Contracted pelvis	113	Placenta previa	66	Preeclampsia	63
Previous Cesarean	84	Prem. separation	34	Rheum. heart d.	42
Disproportion	60	Ruptured uterus	5	Eclampsia	2
Inertia	54			Ch. nephritis	2
Transverse	14	Total	105	Diabetes	2
Fetal distress	7	17.9 P. C.		Cong. heart d.	1
Fibroids	5			Hypertensive d.	1
Prolapsed cord	5			Volvulus	1
Breech	4			Resp. obstruction (spinal anes.)	1
Repaired genital fistulae	4				
Elderly primpiparity	3			Total	115
Ovarian cyst	3			19.0 P. C.	
Previous stillbirths	2				
Contraction ring	2				
Face	2				
Elephantiasis	1				
Compound	1				
Double cervix and vagina	1				
Total	364				

TABLE 11. Indications for Cesarean Section, Boston Lying-In Hospital, 1931-1936

ently be delivered through the pelvis with as great safety as by Cesarean section.

Conclusions

1. Cesarean section contributes too large a proportion of all deaths in the puerperal state.
2. Cesarean section in the United States is accompanied by a 5.8 per cent mortality.
3. This mortality is higher than that reported for certain other surgical operations of equal gravity.
4. The lower segment operation is safer than the classical.
5. The lower segment operation is not sufficiently safe to be employed in potentially infected cases or those subjected to a prolonged test of labor.
6. For such cases the extreperitoneal operation offers the best prognosis for the mother.
7. The extraperitoneal operation is safer for the mother than the Porro operation.
8. The fetal mortality of Cesarean section in the United States is 8.5 per cent.
9. In electing Cesarean section for the benefit of the infant, it should be remembered that the maternal mortality is considerably increased over any form of pelvic delivery.
10. All indications for Cesarean section should be subjected to the most searching scrutiny.

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The appointment of Edwin F. Daily, M.D., as director of the Division of Maternal and Child Health of the Children's Bureau has been approved by the Secretary of Labor. Dr. Daily was formerly a member of the faculty of the Department of Obstetrics and Gynecology of the University of Chicago and staff obstetrician of the Chicago Lying-In Hospital. He is also a diplomate of the American Board of Obstetrics and Gynecology. For the past year Dr. Daily has been the assistant director of the Maternal and Child Health Division of the Children's Bureau.—*The Child, July*, 1937.

Studies in Vitamin C Content of Blood in Patients With Dental Abnormalities*

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You have probably been reading in the literature recently attempts to use titration methods for the determination of the Vitamin C content of the blood. A dye, indophenol, is being used. Three years ago Clarke was probably the first to use this dye indophenol in the ordinary oxidation-reduction reactions, but he did not use it for the determination of ascorbic acid, which is a synonym for Vitamin C. Bessie and King were the first ones to use this dye in the titration for determination of the Vitamin C content of various food sources. Farmer, Abt and Van Ecklun used the dye in titration of the ascorbic acid content of blood. Since the introduction of the dye in titration, many modifications of the test have been made, with just as many varieties of results.

In our clinic we have become interested in the clinical application of this test from many angles: First, for the evaluation of the test as a means of stimulating Vitamin C nutrition states; and second, as an aid in the diagnosis of disease of the soft tissues of the mouth as well as the supporting in structures of the teeth.

Complete ascorbic acid deficiency, or scurvy, is a rarity. The study of such a state presents no major problem. The clinical manifestations have been described fully and classically by old investigators. Hajer has described the classical symptoms in the mouth. Wohlbach and Howe, from an experimental standpoint, have produced the disease in guinea pigs, and have described carefully the histological picture of this disease affecting the dental structures. Wohlbach has described the change in tissue as due to an inability on the part of the connective tissue cells to lay down collagen. Clinical investigators, using somewhat similar methods as we have used for studying ascorbic acid levels of blood and also the ascrobic acid content of urine, are in agreement that the figures .8 milligrams per cent to 1.5 milligrams per cent represent a normal range and also represent a state of saturation. They also agree that the figures .00 to .15 milligrams per cent represent a blood level compatible with clinical scurvy, and when such individuals with a titration in that range are fed ascorbic acid there is a definite lag in the urinary excretion until a blood level of .85 to 1.5 milligrams per cent is reached, which again represents saturation. However, lack of clinical evidence has led to the statements that sub-optimal ascorbic acid nutrition states exist as sub-clinical scurvy. That is, the test is positive, but investigators have not found evidences of the disease. Little or no correlation exists concerning sub-optimal intake, sub-saturation blood levels and clinical manifestations.

In our clinic 83 patients have been examined, some with dental disease and many without. The examination consisted of a complete medical examination, routine laboratory procedures, as well as the Vitamin C determination of the blood. So far as cataloguing the patients is concerned, and relative to the Vitamin C intake, we can establish a few groups. The most frequent group showing partial deficiency disease are those with gastric complaints, those who are on ulcer regimes, gastric ulcer and duodenal ulcer diet regimes, those who have colitis and who have been placed on bland diets by their physicians, those who are allergic, who develop wheals when they eat the ordinary food sources of Vitamin C, and the last and the most rare group are those who because of economic reasons cannot purchase the food sources.

The method of studying was the titration of the blood, the establishing of a level for that individual, and feeding that individual synthetic Vitamin C, then studying the effects of that

*Presented before the Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19 and 20, 1937.

feeding over a period of time, bringing the patient up to saturation with the ascorbic acid, and placing that individual on a maintenance diet or a maintenance dose of the pure ascorbic acid, which was comparable with the amount that is ordinarily taken in in his normal diet. He was then placed on his regular diet without artificial source of Vitamin C, and watched over a period of time with blood titrations to see what the effect was.

(Slide) This is just a representative group of titrations. For instance, an individual comes in with a bolod level of 64 milligrams per cent, is given 1125 milligrams of pure ascorbic acid, pure Vitamin C, over a period of five days. The reason for that is you can take an individual and give that individual a concentrated amount of Vitamin C in twenty-four hours, and he will not reach saturation. It has to be over a period of time. Following injection of that amount of Vitamin C, the blood level titrated at 1.47 milligrams per cent, which is a normal range, and represents saturation. No other Vitamin C was given, no other titrations, the patient was placed on a maintenance diet of 50 milligrams of Vitamin C, which maintained saturation, and then placed on his own diet, which contained the normal food sources of Vitamin C, and maintained at a saturation level of Vitamin C. Another individual comes in with a blood level of 54 milligrams per cent, is given 1125 milligrams of pure ascorbic acid, which came up slowly to 92 milligrams per cent. He was given another dose of 1125 milligrams, and reached saturation, 1.6, could be maintained on 50 milligrams a day and was maintained on his own diet. This individual is one who was operated on for carcinoma of the sigmoid, and has now a permanent colostomy. It is two years since the operation. Her titration blood level was absolutely blank. She developed symptoms, mouth symptoms, and was then placed on the Vitamin C source, starting out with 1125 milligrams, and came up very slowly to .45. She was placed on another intake of Vitamin C, 1125 milligrams, which now represents over two grams of the pure source of Vitamin C, pure crystalline form of Vitamin C, and finally reached saturation at this point. She could be maintained on 50 milligrams a day, and when placed back on her own diet over a period of four weeks began to become desaturated. This is an individual, a male, who developed colitis just before Christmas, and had ten to twelve bowel movements a day, was placed on a bland diet by his physician, and all natural food sources of Vitamin C were removed from his diet. Here it was that he became saturated. It took quite a large amount to do it. This represents three grams of the pure Vitamin C to bring him up to saturation, and he also could be maintained on 50 milligrams a day. Here he was placed on his own diet, and all symptoms cleared at this point. This is mine. I started out with the titration of 1.7. I wanted to see what effect it would have to give me an extra amount, whether I could build it up higher than that. It was impossible to do so after the ingestion of over 2 grams of the pure Vitamin C. It apparently is a threshold substance, and as soon as saturation is reached, saturation of the tissues, the excess amount is spilled over into the urine.

(Slide) This is the individual who had colitis at Christmas time, and was placed on the bland diet. He came in a short time ago with primary mouth symptoms. This is not acute scurvy, and I don't know whether you can make out the redness of the gingival tissue and the hypertrophy somewhat of the tissue in between the teeth. When he took a meal, his symptoms were that there was a bad metallic taste in his mouth, which represented blood. Another symptom was when he chewed on a piece of food it seemed as though this tooth would jump over on that tooth. He was placed on saturation, and the next slide will show the results of saturation.

(Slide) No local treatments. You can see the change in the color of the tissue, the abating in the edematous type of swelling, and the general response to the saturation.

(Slide) This is a fifteen-year-old boy who had titrated at .12 milligrams per cent. The history here was that — this was four weeks after St. Patrick's Day — he had not had an orange since St. Patrick's Day. He was one of ten in the family, and said that for St. Patrick's holiday they each got an orange for the holiday. You can see the marked hypertrophy. This is acute scurvy. We don't often run into this. See the edema. He was brought up to saturation, and the next slide should show the results.

(Slide) It is not completely cured, and does not represent complete saturation yet, but you

can see the melting away of the tissues as a result of treatment.

(Slide) The remaining slides show the various types of cases. This is an adult, and if this were a little bit clearer you could see a blue line, which is characteristic of partial Vitamin C deficiency here. I say that because it can be removed by saturating the individual with Vitamin C.

(Slide) This is a fifteen-year-old individual who began showing this hypertrophy and the shiny edema. He was treated, and the pictures are the same approximately as in the other cases. This is before, and this is after treatment. Note that the color recedes, the bleeding stops, and the tissue takes on a much healthier appearance.

(Slide) This is what we call chronic scurvy in a young individual. Dr. Percy Howe in an experimental production of scurvy in monkeys has produced this marked growth change in monkeys, and if you were to look at the upper jaws of any of these monkey jaw skulls you would see a marked hard overgrowth of tissue over the central incisors and the malposition of the teeth. The only factor we can find for this chronic scurvy compatible with our blood findings is the economic history.

(Slide) This is another picture of a chronic scurvy. You have seen it and called it pyorrhea. See this marked blueness of the tissues, the atrophy of the gingival crest, the soft tissue crest, which is accompanied with atrophy of the bone. Dr. Boyle, at Harvard, has recently produced this same picture in guinea pigs, and it suggests that apparently chronic scurvy is a very important factor in the production of this type of pyorrhea called alveolar atrophy.

(Slide) This is a very characteristic lesion of a partial deficiency. The redness up here is practically normal, but for a distance of about two millimeters around the neck of the tooth you see this redness, which you can get rid of on the basis of local treatment and have the patient come back in a week, with the thing again there. This clears up dramatically when the patient is saturated over a period of time.

(Slide) This is a deficiency of titration of .25 milligrams per cent in a girl of 15 years of age. While I do not know the effect of the Vitamin C on the hyperplasia of the enamel and all the tissues here, but this tends to localize the inflammatory process. This has all been cleared up and the soft tissue has been cleared up with saturation.

(Slide) Again this is a type of marked edema of the interdental septa. In this figure the titration was .35 milligrams per cent, and a recovery was made upon saturation.

(Slide) So far as all the work is concerned, working on blood titrations for Vitamin C nutritional state, the figures have been these: This 0 to .15 represents frank scurvy; what they have called these areas in here, .15 to .25, is either subclinical, here marginal, here below normal, here normal, and here saturation. Our contribution is that in these cases called subclinical by these various workers, what I call gingivitis was improved with saturation. I don't say we cured gingivitis. You have to have local treatment as well, and there are various measures undertaken by local therapy that cures it; but it can be cured, and if there is a partial deficiency, there is a recurrence of it inside of a week to two weeks.

Just in conclusion, I wish to state that the method of titration using indophenol for the study of nutritional states of Vitamin C is an accurate method. It is not difficult, but it is not an easy one. The figures compare very well with clinical findings and dental disease, when local treatment does not clear the condition up, should be referred to the physician to check up why that individual cannot take Vitamin C food well.

DISCUSSION

DR. WILLIAM J. McLAUGHLIN (Bridgeport): First, I want to express my appreciation as a dentist for the privilege of speaking at a medical meeting. My work in the last twenty years has been in the area of surgery and has concerned itself largely with the pathology of the mouth, so I feel qualified to speak on this subject. Necessarily, I come in contact with all classes of people, children and grownups, and it is horrible that we should see so many of these stigmata, which to me are due to a deficiency, some perversion which is not bacterial. We were trained originally in the theory that caries and pyorrhea were particularly the product of a bacterial invasion, and I know that today, at Ann Arbor Professor Bundy is working on the theory still that caries of the teeth is due to the acidophilus bacillus. Back in 1881 Willoughby Mills, associated at that time with Koch in Germany, put forward the theory of dental decay due to bacterial invasion. We thought we had the answer. The theory, as you all know is a chemico-parasitic one, in which the lactic acid bacillus breaks down the starchy molecule into two atoms of lactic acid, and that penetrates the enamel and invades the tubules. However, that does not suffice. That does not give us an answer because if that were true prophylaxis would be the answer to it. Prophylaxis has not proven one hundred per cent perfect, or a panacea, as a cure for the prevention of caries.

We had a wonderful clinic established in this town by Dr. Fones who managed, through good propaganda, to raise about $45,000 a year, so that the children of all the lower five grades, up to the fifth grade, had their teeth gone

over four times a year. Dr. Fones was working on this principle of Dr. Mills that if the teeth were kept clean, and those incipient areas of decay were checked up, the mouth necessarily would be a healthy one. To a great degree that was true. He did that for six years. He was going out to Chicago to make a report or a resume of his work, and I saw him the day before he left, and I said, "Dr. Fones, you know that you and I have been battling over this thing for a long while now." (By the way I happened to be on the Board of Health when the thing was started.) "I don't think prophylaxis is the answer. Dr. McCollum, of Baltimore, has just published a book called 'The Newer Knowledge of Nutrition.' I am going to make you a present of it, and I want you to read it."

The result was that Dr. Fones read the book on the train going to and coming from Chicago, and when he got back he greeted me with the statement, "We have got to revolutionize our dental clinic here in Bridgeport."

Subsequently, therefore, studies were made in regard to the diet of these children, but unfortunately it was through the wrong channel. It should have been made by the medical man. We tried on the Board of Education to get it adopted as an educational project in connection with the program, but it did not work out because a couple of dentists were trying to do something in an area which could have been better done by medical men. In other words, I think the public would have been more conscious of it if it had come through medical experience.

Dr. Weisberger has emphasized what he can do with Vitamin C, and my experience is this: I am inclined to think that many of these oral manifestations we treat as bacterial when in reality the bacteriological background is secondary. It is an aggravation on the lowered, weakened tissue. I have only seen one case of scurvy. It was rather a dramatic case however, because it had sort of a funny side to it. This gentleman was about fifty years of age. He had all the symptoms described: the hypertrophic condition of the gums, the edema, and he was very much emaciated. He was also under treatment for insomnia. In fact, when the physician looked at his gums, he was referred to me. I asked to see his shins. His shins had the hemorrhagic areas on them. I checked on his diet, and found that for years he had been living on Kleb. which is a milk powder, and crackers. When I asked him the reason for this, he replied, "My doctor told me that because of my acid stomach I should never eat any acid fruit or vegetables."

"Have you seen your doctor lately to have him check up on you?"

"Oh, he died two weeks after he put me on the treatment, so I didn't bother."

That is the only real outstanding case of scurvy that I have seen, but I have seen what I suspected were border line cases, such as Dr. Weisberger described, and that had progressed up to the point where the patient was very much inconvenienced. When we begin to think of pyorrhea as such, that is true pyorrhea, as an oral manifestation of a deficiency disease, we shall begin to get somewhere. True, we can get a localized pyorrhea or a traumatic pyorrhea, in which the supporting tissues are pounded out of place and a pocket is made that becomes infected, but a true pyorrhea is one where the alveolar process is all taken away from the roots of the teeth and a general pyorrhea develops. We are beginning to feel we are getting an answer, and that digital treatment and surgical treatment, while it is good, is now not the clue.

I had the pleasure last week of listening to Dr. Price who was at our meeting in Hartford. He is our research worker from an endowment by private individuals and also the American Dental Association. For years he has been making field studies with the aborigines, and I never saw a man so convinced of the fact that what we have been thinking was good health, and the means to make good health, have to be thrown aside, that we are on the right track now in explaining these deficiency diseases through to the absence of some particular substance or substances in our diet that we do not get.

What I do notice is this: Foreigners will come into the office, particularly the Italian people — we have a big Italian population here; we have about 40,000 or 50,000 Italians I think — and the fathers and mothers will have excellent teeth but the children's teeth are just too bad to describe. Dr. Price says if we will check up on large families, we will find that the first and second of a particular family are pretty good physically, but as they go down to the sixth and seventh there is a deterioration. His theory is that the contact the father and mother have with our modern dietary program robs them of these elements that make for good health, so the deficiencies are manifested in the children. In his field studies, particularly with the aborigines (I don't know the exact name for them, but these great big husky warriors), he has come across some rather interesting findings. He says that our ignorance is appalling and their intelligence is just too good to understand in regard to how they can thrive in that barren country where white man cannot live. He says the secret of it all is that they eat foods rich in vitamin content. Part of his program is to take their foods and send them back to Cleveland and have them analyzed for the strength of the vitamin content. He says that over in Uganda (the place that Martin Johnson and his wife made famous by their writings), they live on the blood of the goat and the cow, with the organs of the cow, and some vegetables. They take the long bones and get the marrow out of them, but as far as eating the muscles are concerned, they don't care for them. What he is emphasizing is that those folks over the centuries, through an inductive method of reasoning, have found out and proven that these particular food principles exist, but their intelligence is not developed enough to find out why it is, and all they know is that it is so. Out of it, he says, also comes this principle: that as far as preparation for the future is concerned, they are way ahead of us in that the bride-to-be is put on a diet that will make her rich in vitamin content, after which she is married, and the resulting child has the values of the program that these folks have through the centuries built up as an ideal.

So I do feel today, Dr. Weisberger, that you have something. We dentists are emphasizing it, but the hazardous part of it is that dentists have been trained as mechanics, and when we step into this field we are sort of interlopers or trespassers, and we have to be very particular and careful how we proceed. I do particularly because I work for both the dentist and medical man, and if I were to prescribe in that area I might be criticized on the ground that I was in an area where I did not belong, so I have to

tread lightly, and I generally refer those cases to the physician.

DR. KNOWLTON (Hartford): Someone has remarked that the reason the Norsemen did not settle America when Leif Ericson discovered the Continent in the year 1000 was because they were not familiar with Vitamin C. Certainly in those days a long sea voyage was fraught with tremendous hazards on account of scurvy. Scurvy attracted a great deal of attention, and as late as 1860 an American physician, Dr. Knapp, published an extensive work setting forth the theory that epidemic diseases are due to ascorbic diathesis. Then it was discovered that bacteria have something to do with disease, and we got away from the idea of foods in relation to human health. It is very gratifying indeed that we are getting back to the idea of foods being related to health, and we are recognizing some of the deficiency diseases.

One of the great changes in our food habits during the past century is the increased consumption of sugar. A century ago the sugar consumption in this country was estimated at about ten pounds per capita per year. During recent years it has got up to be over 100 pounds per capita per year, so that sugar now yields us on the average about 20 per cent of our energy, and sugar contains none of the eleven or more minerals and the six or more vitamins that we must have in our diet to keep our balanced diet. Not only that, but we have been refining our foods and taking out some of the minerals and vitamins in bran and breakfast foods, taking out the kernels, and so on. It is highly important that we give more attention to foods, and it is very gratifying that the medical organizations are giving more attention to this matter. The A. M. A. has a committee on foods, and the various medical organizations are putting subjects on their programs in relation to food and food diseases.

I was very much interested in the presentation of the paper and our present ability to evaluate some of these vitamins and to measure them. I would like to ask one question that has to do with the mathematical side of it. I notice that Dr. Weisberger gave the amount of Vitamin C in terms of so many milligrams per cent. I am accustomed to having per cent mean so many hundredths, and death rates mean so many per thousand for the general rate or so many per hundred thousand for specific rates. I am accustomed to the expression "parts per million" for materials on water analysis. I would like to know what 1.7 milligrams per cent means. Is that milligrams per hundred cubic centimeters of blood, or milligrams per hundred kilograms of blood, or what is it, and is there not some other way to express it that would make it perfectly clear on first sight without raising a question about it?

DR. WEISBERGER: That means milligrams per hundred c.c. of blood, and while at the present state of our knowledge it would be nicer to give you some other figures I think if we can tell you that saturation occurs at 1.5 milligrams per cent, and anything below .9 milligrams per cent is under-saturation, we have a range there that is rather more important as a range than as a specific figure.

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PSYCHIATRIC TRAINING FOR INTERNES IN DELAWARE

The Board of Trustees of the Delaware State Hospital announced at its annual meeting recently that it had approved the establishment of a special training course of one month's duration, in residence, in mental and nervous diseases for internes of approved general hospitals. It is the belief, in Delaware at least, that internes coming from outstanding medical schools have sufficient theoretical knowledge of the psychoses and neuroses and need more practical experience. This applies more to those preparing for general practice where a large percentage of work results from mental aberrations.

The nursing profession in Delaware has realized the importance of psychiatric knowledge. Since 1931, the Delaware Hospital has given their students special training in psychiatry by sending them to the Delaware State Hospital for a two months' practical training. The Wilmington General Hospital and other hospitals in the state have sent students to the State Hospital for special training when such could be arranged. The State Board of Trustees of the Delaware State Hospital has now arranged to offer a special course to student nurses of all hospitals in the state.

—*Del. State Med. Jour., July*, 1937

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PHYSICAL EXAMINATION FOR SERVANTS REQUIRED BY NORTH CAROLINA LAW

North Carolina has enacted a law requiring all domestic servants to be examined for the presence of syphilis, tuberculosis and other communicable diseases. Principal provisions of the act follow:

All domestic servants who shall present themselves for employment shall furnish their employer with a certificate from a practising physician or the public health officer of the county in which they reside, certifying that they have been examined within two weeks prior to the time of presentation of the certificate, that they are free from all contagious, infectious, or communicable diseases, and showing the non-existence of any venereal disease which might be transmitted. Such certificate must be accompanied by the original report from a laboratory approved by the State Board of Health. The certificate shall also affirmatively state the non-existence of tuberculosis in the infectious state.

Domestic servants employed must be examined at least once each year and as often as the employer may require, and upon examination shall furnish to the employer all of the evidence of the condition of their health as is set out in the act.—*O. St. Med. Jour., Sept.* 1937.

The Clinical Picture of Suppurative Lesions of the Petrosal Pyramid*

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In the development of the recognition of these lesions we have been confronted with a long list of fatalities, and they have occurred very often when the patient was still in the hands of the general medical man, the pediatrician, or the neurologist. None of these men, a few years ago, were aware of the sequence of events which was taking place as a pathologic entity developed which usually terminated in a meningitis.

As a result of the search for methods to handle meningitis successfully, petrositis was developed as a clinical entity. The literature is rich with material on the subject, but there is a gap to be spanned between the findings of the laboratory and the technical findings of the otologist, and bring this knowledge to the bedside of the average patient. Therefore, I shall endeavor to present the topic with no undue emphasis on otologic technicalities, but with stress on what heretofore have been considered insignificant symptoms, and I shall try to show their significance.

In every infection of the middle ear, in everyone, infant, adolescent, adult, and the aged — all the mastoid cells are simultaneously involved. However, as we are well aware, not every otitic infection becomes a surgical mastoiditis. We first failed to realize this, and we overlooked the fact that the middle ear stands as a box, with the mastoid process on one side and the petrosal process on the other; and that exactly the same series of events, pathologically develop in the petrous process as develop in the mastoid process. In contrast to the decades spent in developing methods of managing mastoidal infections, we must remember that the only recognition that the petrosal infections received was when complete autopsy was performed, the temporal bones removed, and pus, broken down detritus and infective material were found in the petrosa — and it was set down as an incident to the meningitis which terminated the case.

A sequence of events took place when the lesion travelled from the middle ear to the petrosa and entered the dura, but this progression of the lesion occurred unperceived by the doctor, and the symptoms this progression elicited were uncomprehended.

You are familiar with the progression of mastoidal infections and their general symptomatology and therefore I will draw an analogy between the two lesions. There was a time when a diagnosis of mastoidal infection was not made until there was a swelling over the mastoid process; in other words, until a break-through had occurred and a subperiosteal abscess presented itself. Then the otologic surgeon was called in and the patient was submitted to operation. At that earlier stage of our knowledge of the lesion, the diagnosis of the lesion and the indications for therapy were limited to the time when the lesion had become perimastoidal. Rarely was it even diagnosed while intramastoidal.

In regard to petrosal infections, we recognize the gravity of the lesion, and we know of the danger of the patient's condition — when the lesion has become peripetrosal; but in its intrapetrosal phase, because the symptoms are very transient and exceedingly slight, some of us have failed not only to recognize the lesion, but also rarely do anything to combat its further evolution. These transient clinical symptoms must be recognized by the doctor at the bedside wherever possible, so that he can deal with the involvement of this portion of the temporal bone and institute measures for relief before the onset of the dramatic clinical picture of bacterial meningitis which usually terminates in death.

It must be borne in mind that the clinical picture of suppurative lesions of the petrosal pyramid and the accompanying pathology is a steadily moving and dynamic one. It is not static, and although the doctor may see but a

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flash of it at a certain stage in its progress, nevertheless the pathology continues until it breaks through.

In the temporal bone there are three types of bone which may be found, each of which is a variation of the normal for its particular type of structure. One type is intensely aerated, it is extensively pneumatized, and it is a normal type of bone. The second type is not pneumatized, but is dense as iron or stone, and it is also normal for that particular patient. The third — the diploic type — is similar to the long bones of the body, and has small marrow cells in it. It, too, is normal for that individual. But an infection taking place in the middle ear structures assumes a pathological form based on two of the three types of bone which may be present. The ivory-like, hard bone we eliminate, because bacteria do not seem to affect it. There remain the pneumatized and the diploic type of bone, both of which react to bacterial invasion, and which present characteristic tissue reactions to this infection.

Generally speaking, the lesion in the diploic type of bone is an osteomyelitis, and the type of lesion which develops in the aerated, pneumatized bone is a coalescent osteitis. With this in mind, it is natural that the first thing to be done when approaching an "ear case" is to determine the type of bone with which one is dealing. This enables an estimate of which type of lesion the patient will most likely develop, because the type of lesion that develops will almost indicate the correct line of therapy to apply.

There are a few general characteristics to be considered in regard to osteomyelitic lesions. They usually occur in infants and young children — very young ones; and only occasionally in adults. The lesion is also characterized by sepsis, peak temperatures, and pain at the site of the lesion. I do not know why, but I found that usually in infants the osteomyelitic lesions have been bilateral. I have also found that an incision into the membrana tympani seems inadequate for drainage, because of course this procedure does not reach and drain the pathologically involved region. Surgical drainage must be provided for the actually involved parts.

The pain in the osteomyelitic lesion is periauricular; around and in front of the ear. If there is a mastoiditis present at the same time, then there certainly also will be characteristic pain behind the ear. There will also be found an interference with the movement of the lower jaw, because of its adjacency to the site of the lesion. Suckling infants refuse the nipple and will not take food. As I have said, the pathology begins in the middle ear; then, as the sepsis increases and advances, the physician's attention is drawn to accompanying pulmonary symptoms, or when infarcts occur in the abdomen he is apt to concentrate on the distended and infected abdomen (which has been reached through the mediastinal glands or the mesentary glands). This set of symptoms is secondary, but unfortunately it masks the inevitable advance of the primary lesion of osteomyelitis in the petrosa; and unless relieved in time, the patient invariably dies. At autopsy only is the case recognized as one which, adequately and promptly treated, might have been saved.

Metastasis, however, can take place anywhere; and symptoms may appear indicating the presence of brain abscesses, usually multiple. This condition is recognized. The meningeal syndrome supervenes and overcasts the petrosal symptoms which fail of recognition and the patient is lost. Autopsy, however, reveals that the primary lesion — the osteomyelitis in the petrosa — was overlooked during the dramatic evolvement of the picture from the intracranial lesion upon which attention had been concentrated.

There is also a series of cases which all of us have seen, wherein an acute attack has subsided, and a chronicity has become established. As a rule, all the attending otologist's efforts fail to control the persistent and continuing suppuration. This is because there has been established, leading into the middle ear spaces through one of several tracts, a *fistula* which leads from the petrosa and empties into the middle ear and from that structure empties into the external auditory canal. Nature, by means of this continuing suppuration, is attempting to eviscerate the lesion. Some of these cases heal eventually, and become dry because nature has been successful in sloughing off dead bone and detritus.

Another type of case with which we are frequently confronted is the one in which the bone is earated and pneumatized. Here, subsequent to an infection in the middle ear, a coalescent osteitis may develop in some part of the petrous pyramid. This develops simultaneously with

the coalescent mastoiditis, and the intensity of the picture of the mastoiditis obscures what is occurring in the petrosa. Only after the mastoidectomy has been performed and the vivid clinical picture of mastoiditis eliminated do the stealthily and insidiously progressing petrosal symptoms manifest themselves to the eye that is searching for them. These symptoms deserve stress and expansion in order that you may fully understand the clinical course of the lesion.

Before I describe the symptoms in detail let me call to your attention the fact that in the petrosal pyramid, infection is not a complication of mastoiditis. They are distinctly separate conditions,— although one may be tempted to feel that one is the complication of the other. It must be remembered that both originate at the same "crossroads"— the tympanic cavity — and the lesion spreads to the mastoids on the one hand and to the petrosa on the other, more or less simultaneously. Often, perhaps in the majority of instances, a mastoidectomy well performed checks the progress of the petrosal lesion, for if that were not true, every case of mastoiditis would terminate in autopsy, due to the presence of an unrecognized petrosal infection. However, we are not concerned at this time with the great number of patients with petrosal infections who recover spontaneously after mastoidectomy, but we must direct our attention to the group of patients who do not recover.

These symptoms are unlike the symptoms of the osteomyelitic lesion, in that they do not show a periauricular pain, the septic type of temperature, nor the pulmonary and abdominal metastases or infarcts, but they brandish a red flag of danger — in the form of *pain in and around the eye*, on the sime side as the ear lesion. This is portentious, and you must be on your guard, for there is only one other otologic lesion that causes pain in and around the eye. This occurs when, in the course of a mastoidectomy, the lesion has spread into the zygomatic root. This is when the roots of the zygoma are aerated, cellular and pneumatized — for the lesion can spread there as well as into the mastoid or petrosal area, and if the zygomatic root has not been opened and thoroughly eviscerated the lesion may settle there and caused what is termed in the literature "zygomatic otitis". If your patient complains of pain in and around the eye, and you have no x-ray machine, then open the wound and look into the zygoma. Or if you are able, take x-rays, and if you find a negative petrous revealed, then you know that you are dealing with an infection in the zygoma. On the other hand, if you get a positive x-ray, the lesion will be found located in the petrosa.

In the temporal bone there are certain anatomic structures with which everybody is familiar,— the middle ear, the petrous portion, and the mastoid process. Further inward in the petrosa lies the internal ear, the bony labyrinthine capsule which houses the *labyrinth*, the most sensitive structure in our bodies. As the lesion travels from the tympanic cavity toward the petrous tip it passes around this delicate structure. As the lesion goes by this labyrinth it causes a reaction to be set up, and it waves a brief, significant signal in the form of temporary vertigo, with temporary nystagmus which has no particular fixity of direction. But, in contradistinction to a real lesion in the labyrinth, the *hearing* is unaffected,— the cochlea functions, and all cerebellar tests of coordination are found to be normal. Sometimes there is also a temporary paresis or paralysis of the facial nerve because as the lesion travels through the middle ear the facial nerve likewise shows reactions. This paralysis or paresis may be present in the morning, and be gone by the afternoon. This is all unaccompanied by any generalized headache or high temperature, although there *is the eye pain*, which at first is periodic and nocturnal, but which, with gradually increasing intensity becomes steady and persistent. This is the evidence of a reaction from the first branch of the fifth cranial nerve. Sometimes, too, there is a difference between the size of the pupil on the affected side as compared with the other. Then there comes a sudden cessation of all symptoms, and although the lesion is progressing, the whole symptomatology seemingly has disappeared.

We hear all sorts of amusing but misleading explanations in regard to these transient danger signals. Auto drivers of long standing state that somehow they "got a little carsick". Vomiting spells are dismissed as the result of too much company and excitement, and facial paralysis must have been brought on by too hearty laughter! So, these symptoms pass unheeded, and the lesion enters the *quiescent stage* with the patient apparently normal. Dr. Almour and I have used this term for want of a better one. This stage

ends when the frontal headache makes its appearance, along with a rise in temperature, a rise in blood pressure which precedes a rise in intracranial and cerebrospinal pressure, the opisthotonos, and all the other ominous signs which signify the onset of a terminal meningitis. And this will eventuate unless nature intervenes and starts a tract that drains itself from one or another of these areas. As long as this drainage continues the symptoms will remain in abeyance. However, the backing-up process may again occur, because these small tracts may become blocked by a little thickening of the discharge or a little spicular of bone, and then the eye pain and the irritation in the labyrinth will reappear. Once more, until there is a break similar to the break over the mastoid and an epidural formation of pus occurs, the discharge spurts from the tympanic cavity. Or a retropharyngeal abscess appears, due to a breaking down in the neck tissues, and drainage takes place from there. Three of my own patients have drained that way and recovered.

When this break-through occurs, the peripetrosal signs eventually appear, accompanied sometimes by an involvement of other nerves — the sixth, ninth, tenth or eleventh. The meninges have now been invaded by the lesion. The neurologist is called in, but in his consideration of the differing types of metastases, he overlooks the fact that the lesion here described occurs by contiguity of tissue and its principal focus is in the bone. Unfortunately, there are a whole group of men in this country today who still wait for a peripetrosal diagnosis rather than the intrapetrosal diagnosis, to the detriment of their patients.

Up to now, I have been endeavoring to stress the development of the symptoms of a very definite and distinct clinical entity. As this clinical picture became more generally comprehended, many otologists found that cases presenting these signs and symptoms did not all go on to a terminal meningitis. Cautiously adopting a watchful, waiting attitude, they were agreeably surprised to find quite a number of spontaneous recoveries take place, and somewhat taking pride in being designated "conservative surgeons," overstressed this policy of continuing bedside observations until confronted by symptoms of what then turned out to be a fatal intracranial lesion. What seems lacking was a clearer comprehension of the differentiation between purulent petrosal lesions which were in recession from those which were in process of evolution toward the inevitable fatal termination. Almour, before the Annual Meeting of the New York State Medical Society in Rochester this month, will in detail discuss this differentiation. Here suffice it to outline this differential diagnostic factor.

Progression is to be suspected:

When the symptoms of pain in and around the eye change from a periodically present sign, becomes persistent, and then *suddenly* ceases to be presented at all. Likewise, the discharge which has been persistently present since the beginning of petrosal symptoms also quite *suddenly* stops. The pus is finding egress elsewhere. When the transitory phenomena continue with more frequent repetition, and when in addition transient photophobia becomes evident. When a late appearance of a homolateral abducens palsy occurs, or if such an abducens palsy was present earlier,— present even before the simple mastoidectomy was undertaken, it does not show any immediate signs of improvement. When, in the face of a feeling of general well-being, other and additional cranial nerves become involved — ninth, tenth and eleventh, particularly. Finally, when the usual signs of meningeal irritation appear and the patient becomes increasingly irritable, refuses the administration of his nurse and family and "wants to be left alone",— indications of intensity of "malaise", and the whole appearance, attitude and behavior of the patient indicate to a competent clinician that the patient is progressingly more sick than before. This, in the face of the absence of a characteristic febrile reaction, absence of the eye pain and a decrease in the aural discharge.

On the other hand, a petrosal lesion is in regression, when the pain in and about the eye, instead of *suddenly* ceasing, *gradually* diminishes both in intensity and in duration. There are longer free intervals presented. Likewise the aural discharge instead of *suddenly* stopping, is *gradually* lessening in amount. When constant supervision and observation show that there are *no* transient phenomena presented due to irritative reactions from vital structures located in the pars petrosa. If the abducens palsy, when present, unquestionably shows itself as improving. Lastly, when by attitude, behavior and

appearance, the clinician can be sure that the patient "begins to look better", takes an increasing interest in his surroundings, and shows an improved personal morale.

Let me summarize the whole situation for you. In the mastoid process as in the temporal bone, we have three types of bone; the pneumatic, the diploic and the sclerotic or ebonized. This last is not concerned with the lesions embraced in this talk. Most of the osteomyelitic lesions occur in the diploic type of bone. In the young, as a rule, they occur clinically; that is to say, they give a clinical picture of sepsis, and when seen later, of pulmonary, cardiac and abdominal involvement, obscuring the clinical picture. Upon autopsy we find the primary osteomyelitic lesion to be in the petrosa. (According to some French authorities, this is the prime factor in many of the fatal infant diarrheas.) In the pneumatized and aerated petrosa a coalescent osteitis sets in, and is characterized by periodic pain in and around the eye, low grade temperature, and a persistent recurrence of ear discharge. At the end of a week we should have a dry ear, subsequent to a properly performed mastoidectomy on a properly selected and timed case. But if the discharge and the eye pain recur and we have a positive roentgengram, then a diagnosis of petrosal involvement is in order. The roentgen picture alone *does not* make the diagnosis. The eye pain alone does not make it, nor the recurrence of the discharge *alone* — but the three together do make the diagnosis.

Then, in addition, there are the transient signs from the labyrinth, and perilabyrinth — osseous perilabyrinth otitis — technically. There is an involvement of the tissues around the labyrinth and there is an irritated reaction in the labyrinth. The patient hears, and the cochlea is alive. This period is of indefinite duration and then it disappears.

I have often been asked in such cases, how I know that the patient is not healing, and why do I not leave the patient alone. My answer is to call their attention to the ear discharge; because we have a right to expect a dry ear, having performed a proper mastoidectomy. Yet when you wipe away the pus and press your hand lightly on the internal jugular vein, a spurt of pus occurs, a condition quite similar to that which your otoscopic examination revealed before the mastoidectomy. This tells us that the case is not healing, but is passing through the quiescent stage. Attention is also called to the factors outlined above in making a differential diagnosis between a receding and a progressing purulent petrositis. When in the bone there is an active lesion, I do not wait for the termination of this quiescent stage because with it comes the inevitable blow-up resulting in a streptococcic meningitis as a rule, and then I shall be almost helpless. Sometimes, however, even with perforation, recoveries take place. In one of my cases the lipiodol injection spread out over the tentorium, and even penetrated the foramen magnum; some of the lipiodol even seeped down into the spinal column. That patient got well because the infection in the meninges was an overflow from the lesion located in the bone; operation removed the bone lesion and nature took care of the overflow. The intracranial tissues, however, were not yet involved in reactive inflammation.

In cases where we have fistula, the diagnosis is not only a diagnosis *per se* but in it lies the determination upon the therapy to be applied. With the finding of fistula, after most careful and minute search, half the battle is won. When these symptoms are observed but no fistula is found and the x-rays show a "washed-out" tip, the only answer to the problem is adequate local surgery. Our progress lies in the fact that every portion of that petrosal pyramid is reachable by surgery without the danger of incurring a facial paralysis or destroying the labyrinth.

The selection of the specific type of surgery applicable to each type of case is hardly a debatable topic in a general meeting, because it concerns technical otologic considerations. Each of the advocated techniques has some value, and use. A critical analysis of the lesion demands that the type of surgery selected shall be adequate to reach and eradicate the lesion. Progress has been made in this regard rapidly, and today we can say that all these lesions are reachable and can successfully be eradicated by properly selected surgical techniques, without undue danger to life, to the facial nerve, or to the functioning, living cochlea. In view of this outstanding contribution made by otologic surgeons, it is the more necessary to thoroughly compre-

hend the clinical symptoms which I have endeavored to picture for you today, so that in the first place, suppuration of the petrosal pyramid will be recognized, and in the second place, that we shall be enabled to separate the cases which spontaneously heal from those which tend to eventuate in a fatal termination. And finally, when we have diagnosed a case as belonging to the latter group, to promptly institute adequate, purposeful surgery as so to save a threatened life.

DISCUSSION

DR. P. B. MacCREADY (New Haven): It is getting very late, and I am not going to try to discuss this paper. I am going to ask just one question. Since this was presented from the point of view of the pediatricians and the internists, I think they would all appreciate very much if Dr. Kopetzky would tell them a little more concisely just how frequently this lesion occurs.

I am merely going to congratulate Dr. Kopetzky. He is an excellent teacher, and he has presented a very difficult subject in a very concise and clear way.

DR. M. E. BRODSKY (Bridgeport): I think Dr. Kopetzky mentioned one thing which we in neurology think about sometimes, and that is that patient's symptoms, although they may be transient, should always be believed, and a great deal of attention should be paid to them because they will eventually make the diagnosis for whoever examines the patient. These transient symptoms are the bane of the neurologist's existence because the patient is sent to us by a general practitioner, and we cannot find anything wrong when the patient gets to us. When we do spend some time watching the patient, the patient sometimes makes a recovery, and we are no place at all; sometimes the disease progresses to meningitis, and then we are no good either because we missed it when we saw the patient. I believe these transient symptoms are very, very pathognomic.

I also want to mention one further thing, and that is that sometimes you see this terrific eye pain in another condition which Dr. Kopetzky did not mention, and that is a subdural or an extradural hematoma of the occipital lobe. There you will find pain in the corresponding eye, and that sometimes, if it is followed by trauma, will give you a positive x-ray picture which may cloud the picture which Dr. Kopetzky has presented.

DR. SAMUEL J. KOPETZKY: Regarding Dr. MacCready's question concerning the frequency of occurrence, I cannot give you any statistics on it. We have not any. You can well imagine that in regard to the treatment of the lesions in the petrosa we are going too fast, we are going very fast as compared to the development of the picture of mastoidal lesions. At the present time there are hundreds of cases, even accepted in first-class journals, which do not meet the criteria of diagnosis that we have set for ourselves. I, myself, have seen numerous cases diagnosed as petrositis, which I could not agree to and accept. If we had the time I would tell you some very amusing stories about some of these cases where I have been brought from a distance to see a patient, and where everybody has sat up to await a very dramatic operation, and where there was nothing much wrong with the child, so I have ordered it out of bed.

We, ourselves, can only judge by what we see. In our own records there are somewhere around 57 cases recorded. I went over them the other day. Out of those there are only 46 that were accepted as petrosal lesions; therefore, we have had 46 since 1930. It is not a frequently occurring disease, but it is an infrequently occurring disease, and because of its very infrequency one should know about it because when the patient presents a penultimate lesion between the primary and the ultimate lesion in the meninges, there you can handle it, and if recognized and if handled you will not have developed the terminal phase of meningitis, septic streptococcic meningitis. We cannot yet put out statistics that will withstand criticism. In a little while longer we may be able to do that, but it is really immaterial. Of what avail is it for you to know that it occurs 20 per cent of the time or 5 per cent of the time? You are at the bedside of a living patient that is presenting symptoms, and you have got to do something. You cannot take out a table and say, "The chances are one to twenty he will not have it." That is not the scientific attitude. What has that patient got? Suppose it occurs fifty times, half the time, in a hundred; suppose it only occurs one per cent of the time, you are still at the bedside, and you will still have to answer that particular patient's situation. That particular patient's situation raises the red flag when that patient has pain in and around the eye.

The reason I did not bring in hemoatomas of the occipital lobe is because the patient got sick after an upper respiratory condition and developed an otologic lesion; he did not have any trauma, so why talk about it? He might also have other things. That has nothing to do with the case. It is perfectly true it gives pain in and around the eye, but so will a punch in the eye give pain in and around the eye. We are dealing with otologic lesions, otologic lesions that follow middle ear infections, and which at the bedside you will have to determine in a patient having pain in and around the eye has he zygomatic otitis or has he a petrosal lesion. If he has a petrosal lesion, if you have laboratory facilities available, the x-ray will help; if you have not, first look. Eliminate the zygoma. That being eliminated, where is it? If it runs from the ear, and does not run into the wound, it is anterior. If it runs into the wound, most of the pus draining in the wound, it is possibly the labyrinth. Search for fistula. If you find the site, fine. If you have drained your fistula, and the patient progresses towards meningeal irritation, get busy. If you don't find a lesion, and you have a positive x-ray, drainage from the middle ear, you may have an enclosed empyema of the tip. Open it. If the patient does well, nothing further is necessary. If he does not do well, eviscerate the contents of the petrosa just as we habitually eviscerate the mastoid cells. That is all there is to the story, gentlemen.

Protamine Zinc Insulin: Improvement in Carbohydrate Tolerance

CLINICAL OBSERVATIONS*†

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Further experience with protamine zinc insulin in the treatment of diabetes mellitus presents increasing evidence of marked improvement in carbohydrate tolerance with a corresponding decrease in protamine insulin requirements.

In a previous communication[1] it was noted that the diabetic using protamine zinc insulin is rewarded by an ever increasing tolerance for carbohydrates such as he has been unable to equal with regular insulin. Patients who have previously been on fixed doses of regular insulin have been able within a relatively short period of time to radically reduce the protamine dose. In one instance quoted an elderly diabetic had reduced his protamine insulin from 35 units daily to 10 units every 3 days. Four additional patients have since accomplished the same feat, two have discontinued insulin altogether, while others are showing remarkable progress.

Indeed, it is easier to number the few cases which do not show increase in tolerance; for in by far the greatest majority of instances there has been a continuous decline in the protamine insulin requirement, with the original diet kept constant.

Cognizance is taken of the fact that improved tolerance has occurred under the old regime with regular insulin and diet, and even with diet alone. Our past experiences have been comparable with universal experiences in this respect and fully as favorable. The striking feature is that with protamine zinc insulin not only do the previously untreated cases show improved tolerance but similar improvement occurs also in those cases which for a period of time have been on regular insulin and have reached a fixed dose from which they could not vary without glycosuria.

The increased tolerance with protamine zinc insulin can be ascribed to the continuity of its effect and its prolonged action. It furnishes a basic insulin supply by creating a depot from which insulin is regularly and continuously liberated so that the body has available a supply of insulin at all times over a period of at least twenty-four hours. The diabetic metabolism is thus more adequately stabilized, offering particular respite to the pancreas and liver.

The function of the islands of Langerhans is improved not only because the excess burden is removed but also, I suspect, because they are actually stimulated to greater activity by the larger quantities of carbohydrates which become regularly available under the continuous insulin effect maintained by the protamine zinc insulin. Directly or indirectly the diabetic metabolism is further favored by allowing the liver to carry on its functions undisturbed by insulin shock on the one hand, and by hyperglycemia on the other, with all the secondary manifestations that follow in their wake. These and other significant metabolic phases have been stressed in the recent literature by a host of workers and particularly well reviewed by Wilder of the Mayo Clinic.[2]

It appears that protamine insulin finds its greatest usefulness in the patient whose diabetes is in part at least functional, rather than the diabetic whose pancreas is so sclerosed as to allow for no improvement. Improvement occurred most frequently in the large middle-aged group of diabetics; while in the age extremes, the juve-

*From the Diabetic Clinic of the Grace Hospital, New Haven, Conn.
†Read before the New Haven Medical Association, New Haven, Conn., June 2, 1937.

nile and elderly diabetic, although under satisfactory control, the protamine dose has remained constant.

In either instance, however, protamine insulin is indicated; for even if tolerance is not affected, adequate control of the existing diabetic state is better with protamine insulin. On the other hand, its use is particularly encouraged in moderate and mild diabetes, even in cases under satisfactory control with regular insulin, because of this tendency for protamine insulin to improve carbohydrate tolerance.

Does protamine zinc insulin have a curative effect upon diabetes? Protamine insulin is opening new vistas for study and with it new hopes. At the moment the outlook for the diabetic is even more favorable than it has been. The effect of protamine zinc insulin is akin to specific action. Should continued experience show that this increased tolerance for carbohydrates does occur regularly, then protamine zinc insulin will be unique in exhibiting a dual capacity for substitution therapy as well as specific effect.
1186 Chapel Street.

SUMMARY

Marked improvement in carbohydrate tolerance is noted with protamine zinc insulin. This improvement is largely apparent because there is no insulin waste. Actually less protamine insulin is used because it is more completely utilized. Any real improvement in carbohydrate tolerance may be ascribed to the stabilized diabetic metabolism made possible by the continued insulin effect maintained by protamine zinc insulin.

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DIET AND PREGNANCY

Pierce Rucker, M.D., in the Kentucky Medical Journal, July 1937, brings up once more that controversial subject of the effect of diet on pregnancy. Prochownick first published a paper on this subject in 1889. Ehrenfest in 1919 came to the conclusion that the diet of the mother could not influence the size of the child. Friedman, Slemons and Fagan have all expressed the belief that one could influence the size of the baby by the mother's diet. DeLee takes a similar view or Ehrenfest. Rucker relates his experiences with the Prochownick diet. It is rich in protein and low in fat and carbohydrate and contains about 1800 calories. Fluid is restricted. Patients with contracted pelves or with a history of difficult labors are placed on this diet at about the 34th week of pregnancy.

Here are Rucker's reported results. 26 white and 56 negro dispensary patients were delivered, after being on this diet, with only two Cesarian sections, no maternal deaths and a 3.7% infant death rate. 52% of the white dispensary patients went into labor before their expected date and 60% of the colored patients. 203 private patients with contracted pelves or a history of difficult deliveries were put on a Prochownick diet and all delivered by Rucker. The result was no Cesarians, no maternal deaths and a neonatal death rate of 2.41%. There was no evidence of toxemia nor kidney damage in either group. The average duration of labor was found to be shorter in the group on this diet. The babies were of average length but less than average weight and showed no evidence of any harm.

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NEW FEATURES OF THE JOURNAL

With the publication of this issue of the *Journal* two new departments have been added. The first, known as the Presidents' Proscenium, contains a message from the President of the Medical Association of the State of Alabama. In Alabama the State Medical Association is the State Board of Health, a unique situation. Dr. Sledge's article will be followed by similar messages from other state society presidents.

In an endeavor to deepen the bond of friendship between our Society and the corresponding organizations in the other New England states, New York and New Jersey, a second department has been added to be called Our Neighbors. In this section will be reported important news items from these states. It is hoped that our readers will find these columns of practical interest.

The State Program for Crippled Children Under The Social Security Act*

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Security of children is part of the program of the Social Security Act approved August 14, 1935. It represents one of the objective tenets in the presidential messages of 1934 and 1935, concerning the safeguard against the major misfortunes of life. Again, a subdivision of this part of the program are the Services to crippled children, others being the aid to crippled children, maternal and child health service, aid to the blind, and child welfare service. It is a comparatively small program as appropriations go, for the sum allotted by the Government, $2,850,000, is smaller than for any other service, with the exception of that for child welfare, for homeless, dependent and neglected children.

Nevertheless, the crippled children service commands the greatest public appeal of all and, furthermore, it has great implications for the management of public health problems.

There were clearly two suppositions under which this law was enacted:

First, that the care of crippled children is a state obligation; secondly, that it is inadequate throughout the land.

Because this care was held to be a state obligation, the law stipulated that all federal appropriations shall be matched by the State. So if a State has expended $20,000 on the care of cripples it has claim to an equal sum from the basic appropriation under the Security Act, and to an additional amount from a balance if also equally matched. This is a wise provision, I believe, because it accords the several states their own administration of distribution of funds and respects their sovereign right to the support of their citizens, subject to approval of plans and accounting of funds to Federal authorities only so far as the Federal appropriation is involved. The intention of the law therefore must have been not to set up an independent agency but rather to amalgamate Federal with State fund for a common purpose.

The second supposition was that the care of the crippled child today is, on the whole, inadequate. I presume this is true, in spite of the tremendous progress which has been attained by the establishment of an orthopedic service in numerous hospitals, medical schools, and by the Shriners' hospitals. However, adequacy is a relative term. In some few states this situation may appear to be well covered by existing health agencies; in many more the impossibility to meet the demands for crippled care fully is freely acknowledged, and some states are still entirely virgin ground. In very few, if any, of the states there is available accurate information as to the number of children requiring cripple care, their respective ailments, and the expenditure involved. What is known are only vague estimates, but even from these it is only too apparent that neither the governmental allottment, nor the state provisions, nor private institutions and resources, nor all of them combined were sufficient to take care of all indigent crippled children.

When the Government designated the State Board of Education of Iowa as this State's official agency for the crippled children's section of the Security Act, with the President, the Dean of the medical school, the comptroller of the University and the hospital administrator as the administrative heads, and the chiefs of the orthopedic and pediatric services as technical directors, the state service for crippled children came to center around the Children's Hospital. It maintained about 150 beds, was equipped with shops for braces and mechanical devices, had its physical and occupational therapy and con-

*Read before the Thirteenth Clinical Congress, Connecticut State Medical Society, New Haven, Sept., 21-23, 1937.

ducted, out of University funds, a school for classroom and bedside teaching.

There arose, first of all, the question of how the provisions of the Security Act, under which the allottment would be made, could be satisfied in the most beneficial and most far-reaching manner. This law stipulates, for its purpose, to extend and improve services for locating crippled children and to provide medical, surgical, corrective and other services and care, and facilities for diagnosis, hospitalization and after-care for children who are crippled or who are suffering from conditions which lead to crippling. I often wonder if the makers of the law realized the enormity of such a program; if they knew how far even a generous Federal grant must fall short of fulfilling the expectations of all indigent cripples in the state. If they did know, it could only mean that the Government appropriation was intended to be an impetus toward state care of indigent cripples and not a provision adequate in itself to cover such a contingency.

We estimated that there were in Iowa approximately 10,000 to 12,000 crippled children under 16 years of age; probably not more than 3,000 to 4,000 of these were patients of the University orthopedic service, the only state agency for the care of indigent cripples; another, smaller number, patients of small orthopedic services scattered around the state. But what of the great majority of cripples, how many were they and where could they be found? How many of them were indigent? How many could be helped by treatment? What expense would such treatment entail? These were the problems that confronted us at the outset.

The authorities therefore deemed it most appropriate to submit to Washington a plan by which first consideration was given to the point of the law which calls for locating, examining and advising indigent crippled children, and next to the point which calls for hospitalization and treatment. Conformingly, the new activities planned for the crippled children's services were:

1. The locating of cripples through orthopedic field nurses cooperating with local health, social service, and school agencies.

2. To examine these children in diagnostic clinics held in cooperation with the Iowa State Medical Society, the county medical societies, and the State Board of Health, and conducted jointly with qualified orthopedic surgeons in the State designated by the State Medical Society through its counsellors.

3. To receive, tabulate and analyze reports from the field workers and to transmit reports on cases examined in the clinics by the orthopedic surgeons to the referring physicians.

4. To prepare for further information literature on prophylactic sanitation and home care of crippling conditions.

A smaller amount was proposed to be expended on extension of hospital care:

1. By maintaining a small convalescent home in connection with the orthopedic service at the University hospital.

A twenty-five-bed convalescent home at Iowa City in a building to be furnished and equipped by the College of Medicine of the State University of Iowa, from funds outside this budget, providing educational facilities in this home, also outside this budget.

2. By subsidizing the Junior League Convalescent Home, Des Moines, Iowa, in the maintenance of their institution, maintaining a full-time physiotherapist, and by providing convalescent care in boarding homes on a per diem basis (not to exceed one dollar ($1.00) per patient day), in local communities, when in the judgment of the director of services this is to the advantage of the patient.

A further amount to be expended by assisting the State Board of Health in a program for the prevention of crippling conditions, and in a system for reporting visible congenital deformities and birth injuries.

This plan was submitted to the Federal authorities at Washington and was on the whole approved.

1. Central Administration.

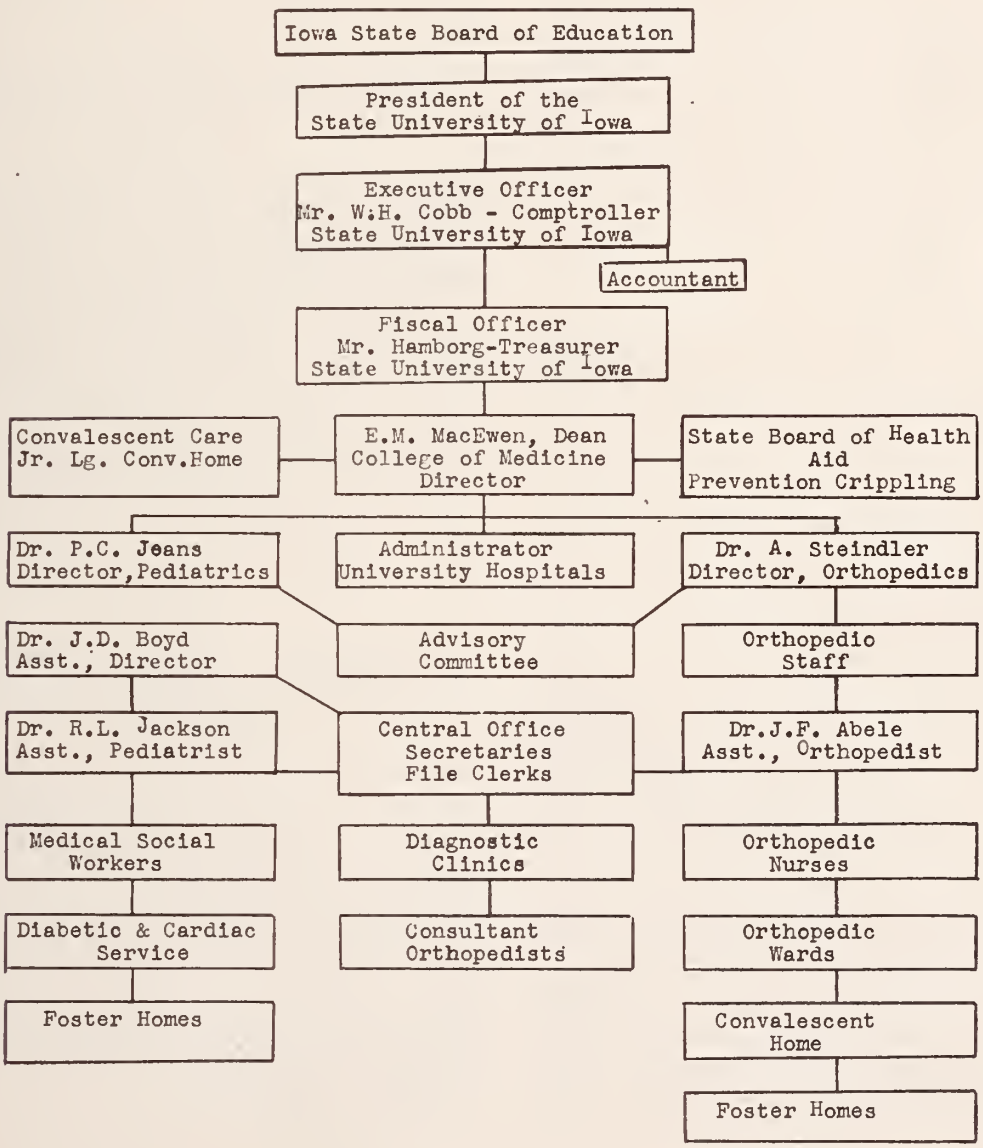
a. Mr. W. H. Cobb, comptroller of the University, designated as the administrator, Dr. Arthur Steindler, director of orthopedic services, and Dr. Philip C. Jeans, director of pediatric services.

b. Field nurses with special training in orthopedics and pediatrics, to be sent in rural areas. Their duties will be to cooperate with the local physicians upon the request of the physicians to make home visits, to assist local public health nurses, social workers and all others interested in aid to the crippled child. They will assist local physicians and local agencies in the organization at a strategic point, of field diagnostic clinics;

assist the field or associate directors in the follow-up of old cases; assist at the clinics and aid the attending physicians in returning patients for additional medical or hospital care or follow-up services; assist private and public agencies in lay education for the crippled, cardiac and diabetic child; cooperate with county medical societies, public health units, federated women's clubs, service clubs and all other local and state agencies for aid to the handicapped child.

They will be available on call of the attending physician to visit the home and instruct the family on the proper care in the after-treatment of the crippled or diabetic child.

c. Diagnostic and follow-up clinics. These are established and maintained on a permanent basis at a strategic point in each of the eleven Medical Councillor Districts. A full-time physician, with special training in orthopedics, will be employed as an assistant to the director of services. He will assist local physicians and other agencies in the organization of the clinics, supervise the clinics, render when requested consultation services to local physicians, check follow-up cases and progress, and such other duties as assigned by the director. Recognized orthopedists, pediatricians or other qualified physicians of the State of Iowa, selected by the county medical societies, will conduct these clinics in conjunc-



tion with the assistant orthopedic director and other field workers. These selected physicians to be paid at the rate of three dollars ($3.00) per hour for each physician, and travelling expenses at the rate of 5c per mile and hotel expense.

2. Cooperation.

a. Public Agencies.

The plan improves and extends the services, especially in rural areas, for locating crippled children by placing orthopedic field nurses, pediatric field nurses, and medical social workers in these areas. The plan provides for cooperation with other field workers, local public health units, and such other agencies interested in the welfare of crippled children and children suffering from crippling conditions. Hospitalization, medical surgical and convalescent care is provided. Educational facilities are provided and extended. Assistance provided for a census. The scope of the service will be enlarged so that within funds available the greatest good will be brought to the greatest number.

b. Other Organizations.

The State Board of Education through its official agents, will cooperate with official state welfare agencies, and all other state and lay organizations for aid to handicapped children.

(a) The Children's Hospital of the College of Medicine, State University of Iowa, maintains a central registry of all crippled children and of all children under sixteen years of age suffering from conditions leading to crippling. It will assist the State Board of Health in the development of a central reporting system and continuous file. It will encourage all lay organizations to report all crippled and handicapped children to this office. A punch card record will be set up and the accumulated information will be available to interested groups or organizations.

(b) Advisory Committee: The following organizations will be requested to name a member to serve on an advisory committee. This committee will meet at intervals, not less than twice per year, called by the director so as to coordinate the services for crippled children. At the meetings the director of the services will present reports of the progress being made in the extension of services to crippled children. The council will serve in an advisory capacity.

The most essential features are the mobile clinics. From November, 1936, to September, 1937, four and one-third medical councillor districts were covered by the orthopedic mobile clinics. Only patients who were sixteen years of age or less when seen at the University hospitals, and only new patients who at the present time were sixteen years or younger were seen in these medical districts, which compose a total population of 793,871 persons of all ages. 1374 patients were examined, of which 627 were new cases, and 747 were former cases at the State University Hospitals.

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WISCONSIN DEFEATS HEALTH INSURANCE

Voluntary health insurance was defeated in the Wisconsin House recently by a vote of 60 to 24. The bill provided for medical cooperatives to employ physicians on a contract basis, and pay for medical service and hospitalization on a contract fee basis. Provision was also made preventing the state medical society from disciplining such of its members as might participate in the plan. This is the first serious attempt to date to actually legislate socialized medicine into existence. We owe the Wisconsin State Medical Society a debt of gratitude for this first victory.

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COMPULSORY HEALTH INSURANCE OPPOSED BY PENNSYLVANIA PHYSICIANS

Returns from 51 per cent of the membership of the Pennsylvania State Medical Society indicate that 98 per cent of the practicing physicians in Pennsylvania are opposed to the principles of compulsory health insurance as well as the bill to initiate compulsory health insurance in Pennsylvania introduced in the State Legislature. Within four weeks after a post card questionnaire had been mailed to the 8,300 members of the society, 4,246 returned their cards.—*O. St. Med. Jour., July*, 1937.

The Recent Revolution in Anesthesia*

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Chief Anesthetist, Homeopathic Hospital, Montreal, Canada

Seventeen years ago when I began to give anesthetics, the anesthesia equipment in the small hospital which has ever since been my hospital home, consisted of bottles of ether and chloroform and a few face masks. This was typical of the fairly well equipped hospitals of that time. Today in that hospital there are eight gas machines of various models, suction in every operating room, oxygen and helium therapy equipment, at least fifteen different anesthetic agents, and much technical equipment for their administration. This transformation has been taking place everywhere in regard to anesthesia.

Today in a well equipped and well staffed hospital the patient may approach the operating room without fear of unpleasantness or danger in regard to the anesthetic, and the surgeon may operate comfortably and with assurance of few postoperative complications. Anesthesia has progressed because there have been on this continent and in Europe men of intelligence and broad vision who were willing to devote their lives to this field which for so long had been the poor neglected step-child of Surgery.

In 1844 Connecticut's own Horace Wells first demonstrated nitrous oxide anesthesia. Wells was a rare genius deserving of more fame as the "Father of Anesthesia" than he has received. Through a combination of misfortunes his work was hardly noticed by his contemporaries. Morton and Jackson introduced ether in 1846, but did little to promote its scientific study. An English physician, John Snow, soon recognized the importance of the new discovery, and by his brilliant pharmacological and clinical investigations during the next ten years laid the basis of the modern science and art of anesthesia. In Great Britain anesthesia was recognized as an important branch of medicine, and for fifty years British anesthetists led the world, whereas in America anesthesia was left to medical students, internes, the family doctor, and finally, in many hospitals, to nurses. It was not until early in this century that anesthetists appeared on this continent who could compare in energy and ability with their English colleagues. Much credit must go to Gwathmy in the United States and to Samuel Johnston in Canada for pioneer work in this field. They were able to demonstrate to surgeons the advantages of good anesthesia. Leading anesthetists ever since John Snow had realized the dangers of chloroform and the unpleasantness of ether, and had been looking for some satisfactory substitute. About thirty years ago, following the example of dentists, American anesthetists began to recognize the value of Horace Wells' nitrous oxide when this gas was combined with oxygen. American mechanical genius provided efficient apparatus for its administration and the increasing use of this agent marked the first real advance in American anesthesia.

But it was soon evident that nitrous-oxide could not completely take the place of ether in major surgery. As a result of the work of Labat, Babcock, Lundy and others there was greatly increased interest in the use of novocaine and other drugs for local regional and spinal anesthesia. In many hospitals spinal anesthesia with procaine, neocaine, metycaine, pantocaine or nupercaine has become the routine anesthetic method. Regional anesthetic procedures such as caudal and sacral blocks, paravertebral blocks and peridural anesthesia are being used effectively by leading anesthetists for certain types of operations and in selected cases. I believe that no method of anesthesia should be used routinely for all operative work, and that each new patient presents a new choice for anesthesia to be decided on by the anesthetist in collaboration with the surgeon. Spinal and regional anesthesia are not suited to all cases, but there is no doubt that this type of work will continue to hold an important place in operative technique. It has been demonstrated in many hos-

*Read before the Annual Meeting of the Connecticut State Medical Society, Bridgeport, May 19 and 20, 1937.

pitals that the surgeon may successfully leave these forms of anesthesia in the hands of the experienced physician anesthetist, and the surgeon may thus devote his whole attention to the operation. Anesthetists who have become expert in regional anesthesia have also explored new pathways in the field of nerve block for diagnostic and therapeutic purposes. Ruth, Lundy, Dogliotti and others have already made important contributions in this direction, and much more may be expected as our understanding of the nervous system increases.

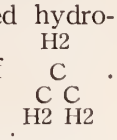
However, valuable as they are, spinal, regional and local anesthesia do not fulfill all the requirements of the anesthetist, so the search for an ether substitute continued. In 1922 Brown in Toronto, and Luckhart and Carter in Chicago introduced ethylene gas as an agent for general anesthesia. Ethylene-oxygen proved to be safe and non-toxic, providing better muscular relaxation than nitrous oxide, but not as complete as ether or chloroform. Ethylene acquired a bad reputation on account of its explosive nature, yet it is no more explosive than nitrous oxide-oxygen-ether mixtures, and when it is administered intelligently and under proper conditions the explosive factor should not be an undue hazard. Ethylene has been administered safely to several millions of patients, and only its inability to produce complete relaxation has prevented it from more general acceptance.

After ethylene came the introduction of numerous non-volatile anesthetic agents for oral, rectal or intravenous administration. Of these tribromethanol (avertin) and some of the barbiturates like sodium amytal, pernocton nembutal have been the most widely used. The chief usefulness of these drugs has been as preoperative sedatives and hypnotics, and countless patients have blessed their discoverers. In moderate doses they are safe and fairly dependable, but in anesthetic doses they may often be depressing and uncontrollable. For a time in 1930 intravenous anesthesia with sodium amytal was hailed as the long looked for goal of anesthetists, but the dangers of this potent drug when indiscriminately used became evident, and it is now used principally for the control of convulsive and tetanic spasms. "Evipal" and "pentothal sodium" are the latest additions to the barbituric acid derivatives designed for intravenous anesthesia. When used by experienced anesthetists they have proved to be reasonably safe, and are filling a valuable place in our armamentarium for short operations of various kinds, and for thoracic surgery. The disadvantage of any intravenous anesthetic as compared with an inhalation anesthetic is in its uncontrollability.

In 1932 divinyl ether (or "vinethene") was introduced by Leake and others to be used as a substitute for ether or chloroform. It has been administered in a large number of cases, and pharmacological investigation has shown it to be almost completely non-toxic, but it is hard to handle on account of its extreme volatility, does not keep well, and requires special apparatus for its efficient administration. It has not come into widespread use principally because in the following year 1933, there was introduced Cyclopropane, a drug which has appealed more acceptably to anesthetists, and which has caused the first real revolution in anesthesia since the day when ether regained its ascendancy over chloroform.

The anesthetic properties of cyclopropane gas were discovered by Henderson and Lucas at the University of Toronto, and they reported the favorable results of their animal experimentation in the Canadian Medical Association Journal in September 1929. During the summer of 1933 Ralph Waters of the University of Wisconsin used the new gas on a large series of patients, and he found that his results confirmed those of Henderson and Lucas. Cyclopropane proved to be stable, non-toxic, pleasant and controllable. Deep relaxing anesthesia may be maintained in an atmosphere containing a large excess of oxygen and there is seldom any danger of anoxemia. It seemed to some of us who saw cyclopropane in its experimental stage that here at last was the safe efficient anesthetic agent which John Snow had dreamed of eighty years ago. We started using cyclopropane with critical interest and now after nearly four years most of us feel that our hopes have been justified. I have personally administered cyclopropane more than 3000 times, and I can truthfully say that it meets almost every need of the anesthetist and surgeon. It has entirely replaced ether in my practice, and I never now need to add any other agent to improve muscular relaxation. There has been no death in our series from this anesthetic, and few post operative complications. It

has been used for all types of operations, and in obstetrics, with uniform success. We have administered it to good risks and to poor ones, to the old and to the very young. We have been impressed by its universal applicability, even to babies a few days old.

Cyclopropane is a simple saturated hydrocarbon with the structural formula of . It is marketed in cylinders of various sizes containing from 2 to 150 gallons. An overdose will paralyze respiration before it affects the heart, but since the anesthetic concentration is from 10% to 20%, there is a large range of safety and never an excuse for overdose when the gas is being administered by a competent person. It is inflammable and is explosive when mixed with certain proportions of air or oxygen. Dangers of fire or explosion are minimized because the gas is usually administered in a closed circuit with a high degree of humidity. However, the ordinary precautions for the use of inflammable anesthetics should be observed with cyclopropane. It should definitely not be employed for thoracic surgery where a cantery must be used to divide a bronchus.

Cyclopropane is not irritating to the respiratory mucosa and hence does not promote excessive secretion, and it is not damaging to the metabolic processes of any organ of the body. It seldom causes severe nausea or vomiting, and it definitely lesssens the incidence of post operative abdominal distention. Much pharmacological investigation by Seevers, Meek, Rovenstine, Bourne, Raginsky and others has substantiated the favorable clinical findings of Waters, Wood, Woodbridge, Neff, Romberger, myself and many others. On account of its potency, however, cyclopropane should remain in the hands of the experienced anesthetist. When cyclopropane was first introduced its cost seemed prohibitive, but now increased production has brought lower prices, and in my hospital the cost of anesthesia is actually less than it was in the days of nitrous oxide, ethylene and ether.

Simultaneously with the introduction of new anesthetic agents there have been equally revolutionary changes in apparatus and in the technique of administration. Waters, who introduced cyclopropane, is also responsible for the apparatus which made possible its economical administration — I refer to the carbon dioxide absorption technique which he invented before cyclopropane was thought of. The patient breathes into a closed circuit, carbon dioxide of the exhaled air is absorbed by passage through a chamber containing soda lime, the anesthetic gases are rebreathed over and over, and fresh oxygen is added in sufficient amounts to meet the metabolic requirements. This technique may be used for any inhalation anesthetic agent, but it is particularly useful for cyclopropane, and today efficient machines for closed circuit anesthesia are being manufactured by Foregger, Heidbrink, Connell, the McKesson Co., and others.

Endotracheal anesthesia has been advocated for a good many years by English anesthetists for use with ether and chloroform in certain operations. But recently it has come into widespread use on this continent for the administration of nitrous oxide, ethylene and cyclopropane in operations upon the head, throat, and chest. With many of us in Canada this is the usual method of anesthesia for tonsillectomies, and is strongly advocated by our surgeons. The technique of endotrached anesthesia has been described many times, and one of the best I have seen is that by Tovell in the Canadian Medical Assoc. Journal in 1932. Recently Leech of Regina, Saskatchewan, has cleverly perfected a "pharyngeal bulb gasway" which provides excellent closed circuit cyclopropane anesthesia in dental or nasal operations without the introduction of an endotracheal tube. This device may also be used for patients to whose faces an ordinary gas mask cannot be fitted.

Suction in the operating room has been another valuable addition. There is now no excuse for drowning the patient in his own secretions. In our own hospital every operating room and delivery room has been equipped at very low cost with efficient suction pumps which run from the water system. We have preferred water suction to electric apparatus because it is noiseless, has no moving parts to wear out, and is dependable. The cost of such an installation is less than $25.00 using simple water pumps such as may be found in almost every laboratory.

Progress has recently been made in the neglected field of obstetrical anesthesia. No one has contributed more to this special problem than

Brian Sword of New Haven. For several years I have been using with great satisfaction Sword's technique of continuous nitrous oxide — air analgesia for the relief of severe labour pains, and cyclopropane for forceps delivery and repair. Last year Morgan, Eaman and I reported a series of one hundred cesarean sections under cyclopropane anesthesia in which we were able conclusively to show that cyclopropane anesthesia was followed by less abdominal distention and less vomiting than other forms of anesthesia previously used. Barbituric acid derivates, paraldehyde, or heroin can be successfully given to women in labour for the relief of first stage pain and to produce amnesia, but they must be administered with judgment and skill. Good obstetrical anesthesia demands an experienced anesthetist, and is successful only when there is complete cooperation between anesthetist and obstetrician.

Many modern anesthetists have interested themselves in the new fields of oxygen, carbon dioxide, and helium therapy. The anesthetist is particularly fitted to understand both the technique of administration and the therapeutic possibilities of these and other gases. Oxygen is of value in the treatment of many diseases but to be effective it must be administered intelligently and with proper equipment. In some hospitals the arrival of the oxygen cylinder is still an indication that all hope for the patient's recovery has been abandoned. Many more progressive hospitals have found that oxygen therapy may be most efficiently supervized by the anesthetists.

The value of carbon dioxide in the treatment of respiratory conditions was first pointed out by Prof. Yandell Henderson, of Yale, and anesthetists have co-operated with him enthusiastically in estimating the usefulness and the limitations of this new discovery. Carbon dioxide should be available in every hospital, and may be used for stimulation of respiration during anesthesia, for the treatment of pulmonary atelectasis, for hiccoughs, for resuscitation of the asphyxiated, and for certain cardiac conditions.

About two years ago Barach of New York announced that he had found helium to be of value in the treatment of asthma. The possibilities of this discovery were at once appreciated by anesthetists, and some of us now keep a cylinder of helium on our gas machines. Helium is physiologically inert, and its beneficial effect is due to its physical property of low molecular weight. Since gases flow through tubes in inverse proportion to their molecular weights, if the nitrogen of the atmosphere is replaced by helium, the asthmatic patient with constricted bronchioles breathes more easily. Helium is not a cure for asthma, but it does give relief and rest to desperate cases. I have found helium useful also in cases where there is tracheal or bronchial obstruction from other causes. I recently had a striking example of its value in a case where a patient developed alarming laryngeal and tracheal oedema twenty-four hours after thyroidectomy. Three inhalations of helium-oxygen for twenty minute periods during the next twelve hours gave her great relief, and the patient, at least, believes that this saved her life.

I hope that this rapid survey of present day anesthesia may have revealed to you the broad interests of the anesthetist. He must know more than a little of physiology, pathology, pharmacology, chemistry and physics. He must be able to estimate the functions of respiration, circulation and metabolism in his patient, and to select his anesthetic agent and method in accordance with the requirements of each individual case. He must understand the art as well as the science of anesthesia, and he must know how to maintain proper psychological relations with both patient and surgeon. Where, you will say, can such a paragon of a man be found? It is true that there may be no ideal anesthetist, and yet throughout the United States and Canada there are many physicians of high character and ability who are devoting their lives to the advancement of anesthesia. The problem of finding qualified physician anesthetists to man even the small hospitals of this country is not insuperable. I believe that organized medicine should recognize, as you in Connecticut have done, that modern anesthesia is a part of the practice of medicine. Opportunities should be created to allow physicians to make a reasonable living from anesthesia commensurate with what one might expect to receive from other specialties. In too many hospitals anesthesia has been seized upon hy hospital administrators as a means of producing revenue by charging professional fees for non-professional service. Within a reasonable time physicians could be found to man the anesthesia service of large public hospitals. Throughout the British Empire anesthesia has always been administered by physicians. A return to professional anes-

thesia in this country will be a gradual process, but I am convinced that it is necessary in the interests of the patient and of the surgeon. The recent revolution in anesthesia which is bringing so much in comfort and safety to our patients has been accomplished at those hospitals and colleges where anesthesia has been recognized as a specialty worthy of the serious attention of scientific medical men.

In conclusion I want to express my thanks for the invitation to come and address you, and to congratulate you on the interest you have shown in modern anesthesia, and the support which you have given to your anesthetists. I am sure that the establishment of a Section on Anesthesia marks a real advance in the usefulness of your State Society, and on the other hand it brings great encouragement to anesthetists both here and in other parts of the country.

DISCUSSION

DR. JAMES R. MILLER (Hartford): Mr. President and Members: I think we owe a great debt of gratitude to Dr. Griffith for covering this field of recent developments in such an adequate and pleasant manner.

I suppose I was asked to open the discussion somewhat in an endeavor to get the point of view of the man who is at the other end of the table. Yet I have had, in all my professional life, an intense interest in anesthesia. Immediately after graduation, Dr. Willis Gatch, whose machine you will remember seeing in the museum, showed me how to use that machine. I considered that a great fortune at that time, but on going abroad I found one of the clinics in which I was working had a Gatch machine and didn't know how to use it. I was picked upon to administer this nitrous oxide and oxygen to the most surprising array of difficult abdominal operations.

Of course, you can't carry a gall-bladder operation on nitrous oxide and oxygen, not very well, with the Gatch machine, and I suffered tremendously.

In that clinic we had a great range of experimentation in anesthesia, not only spinal, sacral, but it was the clinic in which the twilight sleep — dammu-schlaf — was developed, and I naturally became interested in the development of anesthesia.

I feel somewhat diffident in assuming the role of one of our elders in reminiscing over the revolution, having been present before the revolution took place, but such is really the case. This has all been so recent.

I think there are three points of view which may readily come into conflict in giving anesthesia: What it is the surgeon most wants, what it is the patient most wants, and what it is the anesthetist most wants.

The patient, I think, would vote for avertin if that were available and always acceptable. From the patient's point of view certainly it is most ideal to fall asleep in bed and wake up back in bed again. I think we have not yet arrived at a satisfactory substitute for avertin in cases where it is contraindicated.

From the surgeon's point of view complete relaxation during the operation is a desideratum of the highest importance, and any surgeon who has done abdominal work to any extent with spinal anesthesia would wish that every case could have it if that were the only factor involved. The relaxation is so splendid, the intestines are, as a rule, so contracted, and the respiration efforts are so little a hindrance.

The anesthetists's point of view — and I hesitate to crystallize an attitude — I think has in mind particularly the after-effects. At least it has been my experience from my end of the table to feel that the anesthetists try to carry the patient as lightly as possible.

In connection with cyclopropane which we have used a great deal since Dr. Tovell has come to Hartford, one of the difficulties that I have experienced is that our anesthetists do not seem to appreciate the exact depth of the anesthetic at the time when we may wish to pack off the bowels, and we often have to wait until relaxation is more perfected.

With a slower moving anesthetic like ether the anesthetist could gauge about the time when the operator wanted to have complete relaxation and be ready for it. But with cyclopropane it only takes a short time to get this stage. But I haven't found that the anesthetists have a very accurate idea of just how deep the patient is under.

My own feeling about spinal anesthesia is that if it is given in small doses, relatively small safe doses, in chosen cases that are not human wrecks, for operations which are in the pelvic area, it serves a very useful purpose.

I would like to say, just in passing, concerning intravenous anthesia for short operations, that I feel it has been quite ideal where the operative procedure doesn't take more than twenty to thirty minutes. I have had occasion in the past year to operate on two cases in very serious shock and Dr. Tovell gave us an excellent anesthesia with a block of the entire operative area.

To me it was quite a revelation. I had not seen it done before, and one's ability to operate through tissue that was not infiltrated with a local anesthetic was quite a new experience.

I think that we are definitely on the road away from the days when anesthesia was bread and butter to the young man who was just out. Anyone who has experienced the facilities of a well-directed anesthesia service never wants to go back to the old days.

DR. S. B. WELD (Hartford): Mr. President, I wish to express my personal appreciation to Dr. Griffith for coming down here from Montreal. I feel we are exceptionally fortunate in having this presentation at this timely date, and that we are very fortunate in having Dr. Griffith to give it.

I would like to ask Dr. Griffith if he will discuss the bleeding complications that we sometimes seem to get with cyclopropane, if it is imaginary on our part or if it is a real fact.

DR. GRIFFITH: In regard to the question of the use of avertin, I would like to add that I am a great enthusiast for avertin, but not as an anesthetic agent in itself. We use avertin more or less routinely in our abdominal sections for private patients for the induction, but only in small doses.

From the patient's point of view that is the anesthetic, but it isn't really the anesthetic from the surgeon's point of view because we don't give enough to make any kind of a relaxating anesthesia. Giving an 80 milligram dose to the average patient will put him to sleep. We combine cyclopropane with that, and I feel sure that in our

work we are able to get perfectly adequate relaxation, even for upper abdominal work, with a combination of avertin and cyclopropane.

Occasionally a patient will come along when it is very difficult, but we used to meet pretty difficult patients when we were dealing with ether, and I suppose we will always meet them, whatever anesthetic agent we have. However, for our usual upper abdominal work I am satisfied and I believe our surgeons are satisfied now that they get as good relaxation, even as they want with spinal anesthesia.

Regarding the depth of the anesthetic under cyclopropane, that is something which it is hard to estimate, but I find that with increasing experience we are able to understand it better and the patient doesn't get light in the middle of an operation, as they often used to. I think that is a problem that will be solved after we get more accustomed to the anesthetic.

There has been a good deal of discussion regarding the question of bleeding with cyclopropane. Some surgeons think that there is more bleeding and others don't consider it as an important question. I really think that there is more surface capillary oozing under cyclopropane, the same as there is with some other gases, but our surgeons have come to disregard it. As soon as you leave the superficial tissues alone they stop oozing.

I just read an extract from one of Dr. Ralph Waters' papers regarding the question of bleeding. Waters was the first one to introduce cyclopropane and he has had more experience with it than anyone.

He says in a report in the Journal of the American Medical Association: "The amount of bleeding from the capillary bed during operations is of interest to the surgeon and difficult to evaluate. Every new agent is subject to criticism from this angle. Some work has been done showing that other factors such as oxygen or carbon dioxide content of the blood are more important than the anesthetic agent in influencing wound bleeding. Of nine surgeons working in a routine manner with cyclopropane at Wisconsin General Hospital during the past year one is positive that more wound bleeding occurs. No such comment has been offered from the other eight. On several occasions the comment from the one source has been offered that bleeding was excessive when the agent was ether or nitrous oxide but believed to be cyclopropane. Observations of coagulation time before, during the second half of cyclopropane anesthesia, and one hour following have been made by the capillary tube method. No significant change was noted in twenty-one cases observed."

I feel myself that there are so many factors that influence the question of bleeding in each individual patient, that I haven't been able to come to any definite conclusion regarding the question of bleeding under cyclopropane.

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CONNECTICUT LOSES ALLAN CRAIG, M.D., TO BANGOR, MAINE

We as physicians of Connecticut regret the loss of Dr. Craig but what is one's loss is so often another's gain and this time the Eastern Maine General Hospital at Bangor, Maine, is to be congratulated. After several years as Medical Director of the Charlotte Hungerford Hospital at Torrington, Dr. Craig goes to Bangor leaving a host of friends behind. Dr. Craig obtained his degree in medicine at McGill and has been an active participant in the program of hospital standardization throughout the United States and Canada as carried on by the American College of Surgeons and the American College of Hospital Administrators of which he is a Fellow and member of the Board of Regents. He represents the New England States as a member of the Board of the College of Hospital Administrators. Dr. Craig goes to Maine, not as a stranger, but as a personal friend of many men in the state. Our heartiest congratulations and best wishes accompany him.

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AMERICAN LIFE CONVENTION

At the meeting of the Medical Section of the American Life Convention held at Colorado Springs in June, Dr. Donald B. Cragin, medical director of the Aetna Life and chairman of the Section, presided at the business sessions. In his opening address Dr. Cragin gave the results of a questionnaire from 197 companies in regard to the amounts paid the medical profession in the year 1936. For medical fees, plus compensation, plus accident and health and leaving out state insurance, automobile liability, self-carriers, contract practice, a large portion of group and industrial payments; the figure reached the stupendous sum of $70,386,097.42.

From reliable sources an estimate can be made of well over $100,000,000 paid by all companies for medical services in the United States. It was estimated that about $800,000,000 was paid for medical services by individuals in this same year, and it is also interesting to note that $360,000,000 was paid for patent medicine.

Dr. Cragin felt from these figures that the insurance companies were justified in trying for a closer bond between the companies and the medical practitioner and felt that if the figures were understood by the profession at large that, with the information which is available to the profession, statistics on longevity, heredity and prognosis of disease, yearly available, an entering wedge for closer cooperation and understanding would be afforded.

Dr. A. S. Robinson, medical director, Connecticut General Life, read a paper on "Supplementary Examinations," this being discussed by Dr. H. H. Shook, medical director, Ohio National Life, Cincinnati. Dr. E. W. Roye, medical director, Midwest Life, Lincoln, Nebraska, and Dr. H. W. Cook, vice-president and medical director, Northwestern National Life, Minneapolis.

Prepaid Hospital Service

CREIGHTON BARKER,
Administrative Secretary, Connecticut State Medical Society

The Connecticut State Medical Society may review with justifiable satisfaction its deliberations and conclusions concerning prepaid hospital service. The project came before the Council for consideration about a year ago and after a thorough inquiry it recommended to a special meeting of the House of Delegates that the Society approve prepaid hospital service in general but that the Society's approval be withheld from plans that included any medical service. Considerable argument was forthcoming as to how medical service should be defined, with especial emphasis directed toward the consideration as to whether X-ray, anesthesia, and laboratory service should be considered as "medical service." The House of Delegates finally adopted the resolution, approving the principle of prepaid hospital service when such plans shall not include any medical service as outlined by the State Society.

Since no definition of medical service has been established, the Council next directed its attention to such a definition and presented to the House at its Annual Meeting in May, a resolution to the effect that, "the approval of The Connecticut State Medical Society be given to prepaid hospital service contracts only when such contracts exclude medical services of physicians other than those customarily rendered by a resident house staff and when such contracts are underwritten and administered by non-profit making organizations". This resolution was passed by the House of Delegates and the Society placed itself upon record to that effect.

That this action by our Society was sensible and well merited was borne out by a vote of the House of Delegates of the American Medical Association at its Annual Meeting in Atlantic City a few weeks following the meeting of the House of Delegates of the Connecticut State Society. The action of the House of Delegates of the American Medical Association was based upon the report of a reference committee which had previously been appointed to inquire into the subject, and excerpts from the report of that committee are of interest because they so closely parallel the discussion and decisions that were reached by our Society.

> "At the time the report was prepared there were fifty-six operating, and thirty-four proposed group hospitalization plans that were being actively promoted. These ninety plans are all that remain active out of some 172 surveyed. This indicates a strikingly high mortality for group hospitalization plans. Some 469 hospitals were reported to be participating in plans in operation or proposed. At present the best estimate that can be made from available membership reports indicates that about 700,000 persons have become members of these schemes. Subscribers and their dependents are included in the membership reports in most instances. The number of subscribers — those who have actually signed their names to contracts and pay membership premiums for hospital insurance — is estimated to be about 500,000.
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> "The number of these projects or the size of the membership is not the most significant development in the group hospitalization movement. The most important factor in this new method of marketing hospital services lies in the influence that it has on the relation of hospitals to medical practice. The hospital service contract seemingly cannot be limited to the provision of essential hospital facilities. With few exceptions, the contracts include medical services in one form or another. The practice of clinical pathology, anesthesia, radiology and physical therapy are a part of the practice of medicine. These services are medical services, whether performed by hospital employees under the direction of a salaried physician or by physicians who are practicing privately and have no contractural arrangement with hospitals. Whether physicians are salared or not, they are governed

by the Principles of Medical Ethics, which includes the principle that:

"*It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.*

"If the profession encourages group hospitalization plans that include medical services, it cannot consistently object to hospitals profiting from the services of physicians when other special medical services are added to group hospitalization contracts.

"The Bureau has repeatedly directed attention to the fact that group hospitalization is actually a form of insurance coverage. The determination of actuarially sound bases for premium rates, the careful selection of risks and the wise handling of funds are insurance duties that cannot be lightly undertaken by the inexperienced. The organizers of group hospitalization plans have accepted as probably experience that 10 per cent of the members will be hospitalized for an average stay of ten days, or that one patient-day per member annually will have to be provided. The rates charged subscribers and the payments to member hospitals are usually based on this expectation. The plan of group hospitalization has less reliable actuarial computations than health and accident insurance, which is notoriously unstable.

"Health and accident insurance companies have found that 'the average person with a new form of insurance policy does not become 'insurance conscious' until he has had his policy a year or two — then the claims start to come in.' The financial security of hospital insurance will depend on a more accurate estimate of anticipated losses than seems possible at present. Already it appears that certain groups, such as hospital employees, nurses, employees of physicians, women and adult dependents, are unusually hospital minded. Recently there has been a noticeable adoption of restrictions in hospital service contracts to prevent impending excessive hospitalization. On the other hand, some of the most ardent proponents of hospital insurance schemes take the position that premium rates must be reduced. The indications from the schedules that have been returned are that hospitalization under group plans will be greater and the patient stay will be slightly shorter than expected. If the future financial security of these plans is at all doubtful, they should not now be held out as a solution of the financial ills of hospitals.

"The financial balance sheets of some hospital insurance schemes may be deceptive. There appears to be a growing belief that these schemes are accumulating appreciable reserves. On the basis of total income, several plans have reported surpluses. If, however, hospitalization costs and administrative and promotional expenses are deducted from the **earned** income, surpluses would, in some instances, be materially reduced and apparent profits might be transformed into losses. A few of the better managed plans do report actual surpluses, but even these amount to less than $2 per member, whereas a conservative reserve would be $5 per member.

"There appears to be a current attitude that reserves are unnecessary because member hospitals always stand ready to render services. However, since hospitals usually contract to render service only on the payment of a specified per diem rate, it is essential that funds be available when members of the plan need hospital care. At the present stage of hospital insurance schemes the question of the liability of member hospitals to provide service under the contract, if the funds of the plan should become exhausted, has not yet been determined. It is believed that greater security could be provided for members by guaranteeing both the available facilities of member hospitals and an adequate cash reserve.

"During the present period of rapid membership growth, a low loss ratio can be expected. However, as the membership grows

older and it becomes more difficult to obtain new members in groups large enough to avoid adversed selection, an increase in the number of persons hospitalized and in the costs of hospitalization will be probable. Thus, when the membership of these plans reaches a stationary point or begins to decline an increase in the hospitalization of members and in costs can be expected. The actuarial basis for each plan will then require close scrutiny. If such developments occur, those plans which have the setting up of reserves will be in a particularly hazardous position.

"The new plan for group hospitalization is too often considered as a device to fill vacant hospital beds and to augment hospital income. These plans were originally supposed to be a method of assisting persons with limited means to secure necessary hospital services. If would therefore be assumed that such services should be rendered at less than regular rates. Accordingly, there should be some income limitation, at the 'comfort level' of the community, to exclude those persons able to pay fair rates. If no concession in rates is made, that is, if the hospital continues to receive full fees for services rendered, there may be little justification in insisting on an income limitation for those who may subscribe. If the hospital continues to receive regular rates under the group hospitalization plan, the plan simply becomes a method for selling hospital service on a prepayment basis and the altruistic purpose is entirely lost. The value of the group hospitalization plan will then be determined by the answer to the question 'Is it worth while to create an institution to provide hospitalization on a prepayment arrangement for hospital bills when the administrative costs are some 12 to 40 per cent of the patients' fees?' It is believed that a postpayment plan for those persons really unable to meet their hospital bills would be more economical. In a number of communities, county medical societies have created facilities whereby persons having low incomes may secure medical and hospital care at reduced rates on a deferred payment plan. The cost of administration of such plans is about 10 per cent, which is borne by the physicians and the hospitals. No interest, carrying charges or credit rating costs are added to the patient's bill. In the last analysis public opinion will decide which plan is wanted, but all persons should be entitled to the facts without the coloring of bombastic claims.

"Available information indicates that there has been an increase in the number of persons seeking free hospital care. When considered in connection with the incomes of American workers, this increase does not appear to be entirely warranted. It is claimed that hospital insurance schemes will meet the needs of the low income group and will remove them from tax-supported hospitals and the free services of private hospitals. Group hospitalization plans are ostensibly intended for the benefit of population groups on which full hospital fees would prove a hardship. However, it is often stated by the proponents of hospitalization insurance schemes that membership has not yet reached the rural and low income groups. These proponents believe that the premium rate is an obstacle in many cases. While the cost for a single membership is usually about $9, the annual cost for a family may be as high as $49. The relief from the dilemma will require serious study. A hospital routing plan, based on a central admitting bureau which determines the ability of patients to pay hospital bills, is a more direct solution to the problem of the abuse of free hospital services.

"Group hospitalization plans at best will serve but a small percentage of the eligible population. They make no provision for the chronically sick and the unemployed. They must not, therefore, be permitted to develop features antagonistic to the private practice of medicine, which is maintained to provide for the medical needs of all persons regardless of income status, nature of illness, age, membership in some social group, or any other such artificial classification.

"The Bureau of Medical Economics of the American Medical Association has consistently maintained that the decision as to whether or not a group hospitalization plan is essential must rest primarily with the medical profession and the hospital officials of the local community. Furthermore, if it is decided that a group hospitalization plan

is necessary to complete or to augment the existing hospital facilities of the community, certain principles of organization and administration should be observed. The following principles are suggested in the interest of fairness, efficiency and great security, and in the event that hospital insurance is deemed necessary:

"1. The plan of organization should conform to state statutes and case law. The majority of the governing body of the hospital insurance plan should be chosen from among members of official hospital groups and members of medical societies. Great care should be taken to assure the nonprofit character of these new ventures.

"2. The plan should include all reputable hospitals. The qualifications of the participating hospitals should be closely supervised. Member hospitals should be limited to those on the Hospital Register of the American Medical Association or to those approved by the state departments of public health or other state agencies in those states in which there is approval registration or licensing of hospitals.

"3. The medical profession should have a voice in the organization and administration of the plan. Since hospitals were formed to serve as facilitating means to the practice of medicine, the medical profession must concern itself intimately with plans likely to affect the relations of hospitals to physicians.

"4. The subscriber's contract should exclude all medical services — contract provisions should be limited exclusively to hospital facilities. If hospital service is limited to include only hospital room accommodations such as bed, board, operating room, medicine, surgical dressings, and general nursing care, the distinction between hospital service and medical service will be clear.

"5. The plan should be operated on an insurance accounting basis with due consideration for earned and unearned premiums, administrative costs and reserves for contingencies and unanticipated losses. Supervision by state insurance departments has been advantageous for both the buyer and the seller of insurance contracts. Laws permitting the formation of hospital service corporations should not remove the benefits of such supervision nor violate the principles enumerated.

"6. There should be an upper income limit for subscribers. If group hospitalization plans are designed to aid persons with limited means to secure hospital services, they should render such service at less than regular rates. If no consideration in rates is made for persons with limited means, group hospitalization plans lose their altruistic purpose and there may be little justification for an income limit.

"7. There should be no commercial or high pressure salesmanship or exorbitant or misleading advertising to secure subscribers. Such tactics are contrary to medical and hospital ethics and are against sound public policy.

"8. There should be no diversion of funds to individuals or corporations seeking to secure subscribers for a profit. The moment hospitals lose their traditional character as institutions of charity and humanitarianism the entire voluntary hospital system will break down.

"9. Group hospitalization plans should not be utilized primarily or chiefly as means to increase bed occupancy or to liquidate hospital indebtedness. Such plans, if they are necessary, should place emphasis on public welfare and not on hospital finances.

"10. Group hospitalization plans should not be considered a panacea for the economic ills of hospitals. They can serve only a small portion of those persons needing hospital services. Hospitals must continue to develop efficient methods of administration and service independent of any insurance method of selling their accommodations.

"For many years there have been serious discussions among physicians and hospital administrators concerning the most equitable arrangements for anesthesia, clinical pathology, radiology and other special medical services in hospitals. These are fields in which hospitals and the medical profession must seek and apply adjustments. Just now, when a more satisfactory relationship in some of these fields seems to be in view, group hospitalization tends to accentuate and perpetuate the very conditions which the medical profession and some hospital authorities have sought to improve. Hospital insurance plans tend to force the con-

tinuation of undesirable practices and relations between physicians and hospitals.

"These prepayment plans for hospital care show a distinct tendency to place hospitals themselves in the field of medical practice. If group hospitalization organizations become sufficiently strong in membership support, and if they pursue the announced policy of liberalizing benefits, the future course of such plans seems clear. Either they will offer a longer period of hospital stay, or they will include more medical services. It is only occasionally that patients need more than the twenty-one days of hospitalization now offered. At the time of hospitalization every patient needs one or more medical services. Who can deny that the directors of these schemes may propose to include additional medical services to make their contracts more salable? There is only a remote possibility that a future development in these plans will be a decrease in subscription rates.

"If group hospitalization schemes were to confine their benefits strictly to hospital facilities, the movement would avoid most of the undesirable disturbances in the field of medical practice without impairing the value of the plan as a method of assisting persons with limited incomes to receive hospital services. In this connection there is need for a thorough understanding on the part of the organizers and administrators of group hospitalization plans as to what constitutes medical services.

"Because of the several reasons outlined, group hospitalization, instead of preventing the advent of some form of sickness insurance, is more likely to be the first step toward the opening of hospitals for all persons in the community and then a system of state managed medicine. The group hospitalization movement is clearly one of the major issues demanding action by the medical profession if the future of medical practice is to be maintained on a basis which guarantees that the welfare of the sick individual is the first consideration."

Connecticut Hospital Association

ALBERT W. BUCK, PH.D., **President**

ABSTRACT OF REPORT OF COMMITTEE ON CURRICULUM OF NURSING SCHOOLS

William B. Sweeney, Chairman, Willimantic

Following the publication of Bulletin A-2 by the National League of Nursing Education pertaining to a plan for nursing education and nursing service this committee met on December 4, 1936 at Hartford for consideration of this same plan. The following conclusions were reached: 1. That the committee was in accord with any plan which would thoroughly prepare young women to give nursing care to sick people under the direction of the attending physicians; 2. That since such a plan would increase the cost of operating both schools of nursing and hospitals no further financial burden should be placed upon voluntary hospitals at this time because of lack of adequate public support; 3. That if and when any organizations desired to increase these expenses, the necessary additional funds should be secured by these same organizations.

The committee did not agree with the statement in Bulletin A-2 that the general level of professional nursing personnel and nursing practice is too low at the present time. No nursing school is in any position to educate and prepare a nurse for special nursing activities. This training must be secured by post-graduate work.

Before recommending any advance in the present nursing curriculum the Connecticut State Medical Society was asked for an opinion through its Committee on Hospitals. This latter committee felt very emphatically that the public would be unable to pay an increased compensation for nursing service, since about 85% of the people fall into the comparatively low income class. If the public were to be satisfied with any additional burden of this nature it would tend to encourage government control.

A questionnaire was drawn up for presentation to the Central Curriculum Committee of the National League for Nursing Education in order to obtain further information on the problem. Further study is necessary before rendering a final report.

Presidents' Proscenium

A Message from Alabama

E. S. SLEDGE, M.D.
President, Medical Association of the State of Alabama

Alabama sends greetings to her sister, Connecticut. The Medical Association of the State of Alabama welcomes the opportunity to send this message to The Connecticut State Medical Society and tell briefly of its family life.

The Medical Association of the State of Alabama was first organized in 1847; it was revived in 1868, after an interregnum during the Civil War; it was reorganized in 1873 and a new constitution adopted incorporating the principles under which it operates now; the constitution in its present form was adopted in 1908. In 1875 the Association was made the State Board of Health. In 1877 the Medical Practice Act gave to the Association the function of executing the laws regulating the practice of medicine.

Membership in the Medical Societies of the Counties is by election and carries with it membership in the state association, the county medical society forwarding dues annually for each member. The constitution of each county society is fashioned after that of the state association.

In addition to the members, the association provides for delegates, counsellors and correspondents. The delegates are sent by the county societies to the annual meeting of the association. The College of Counsellors is apportioned by congressional districts; the vacancies are filled by nominations emanating from a caucus of delegates from each district and elected by the association in session; after serving three periods of seven years each a counsellor becomes a Life Counsellor. Correspondents are elected by the association from among distinguished members of the medical profession residing outside of the State and from counsellors who have resigned counsellorship after not less than ten years of faithful service.

The Association is the State Board of Health, an executive branch of the government of the State. The State Health Officer is elected by the Association; great care is exercised to select a qualified man; the association has had but five State Health Officers! Three have died in office; one had to resign because of ill health after a short tenure in office; the fifth is now serving in a most capable and distinguished fashion.

A board of ten Censors is elected from the College of Counsellors. This board meets as often as may be necessary and serves in three capacities,— Board of Censors of the Association (Executive Committee), Board of Medical Examiners, Committee of Health.

The other officers of the Association are,— President, Senior Vice-President, three Junior Vice-Presidents for divisions of the State, Secretary, and Treasurer. The annual meeting of the Association is in April and lasts three days; the first two days are given over to the scientific program and to entertainment; the third day is reserved for the business session, all voting being done by delegates and members of the College of Counsellors.

The high-lights of the meeting are the Jerome Cochran Lecture as a special order during the morning of the second day and the Public Meeting in the evening of the second day. The Jerome Cochran lecture was instituted in honor of Jerome Cochran, the father of the Association and the first State Health Officer of Alabama. The Public Meeting has two addresses on matters of broad public as well as professional interest. The talent for the Jerome Cochran Lecture and for the Public Meeting is drawn from the United States at large; also the entertainment may be considered a third high-light, as great

effort is made to insure everyone having a good time.

The Woman's Auxiliary to The Medical Association of the State of Alabama meets at the same time as the Association; and the ladies conduct their meeting after their own fashion; they manage to enjoy themselves thoroughly.

During the summer months there is a meeting of each of the three divisions, the corresponding Junior Vice-President presiding. These meetings are equally scientific and social.

The activities of the state health system are directed by the State Health Officer and are divided into bureaus each of which has a trained director,— Sanitation, Epidemiology, Vital and Mortuary Statistics, Laboratories, etc. All funds for health work are expended by the health department in conjunction with the County health units. Each county has its health officer, in some instances one health officer serving a group of rural Counties; each County has its local Board of Health composed of five doctors and the Chairman of the County Board of Revenue and Road Commissioners; these five medical men serve also as the Board of Censors (Executive Committee) of the County Medical Society. The state health department works in close cooperation with the United States Public Health Service and other national agencies and organizations for the advancement of public health work.

The doctors of Alabama are proud of their Association and of their Health System; both are distinctly unique and essentially "home made"; and each member of the Association understands fully the responsibility placed upon him. Most of the other states have adopted health systems fashioned after what has been known as the "Massachusetts Plan".

The distinctive features of this Alabama system are,— politics is kept out of the state health work and the medical practice act; qualified workers are chosen by those qualified to choose health workers; funds for public health work are expended by those best informed as to how such funds should be expended.

The citizens of Alabama have delegated the responsibility of their health system to the organized medical profession; and they are satisfied with the result.

PHYSICIANS LICENSED TO PRACTICE

The following physicians have been licensed by the State Department of Health to practice medicine and surgery following examinations conducted by the Board in July:

Bridgeport — Massey, Daniel Mario, 1025 Noble Avenue.

Danbury — Mellroy, Patrick T., R.F.D. No. 5.

Greenwich — Tunick, George L., 31 Indian Harbor Drive.

Hartford — Golino, Emanuel F., St. Francis Hospital. Lamoureaux, Eugene E., Isolation Hospital.

New Haven — Anderson, Frederick, New Haven Hospital. Jordan, Robert H., Grace Hospital. Spiegel, Charles M., 205 Sherman Avenue.

Norwich—Schmidt, Wolf D., 28 Church St.

Rockville — Orlowski, Andrew W., 115 Brooklyn Street.

Rocky Hill — Peacock, Albert U.,7 Elm Street.

Stamford—O'Meara, Francis, 54 Parker Ave.

Stonington — Cottrell, Leone M., 151 West Broad Street.

Waterbury — Derieux, George H., 195 Grove Street.

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COMING EXAMINATIONS

American Board of Dermatology and Syphilology: Written examination for Group B applicants will be held in various cities throughout the country in April. *Oral examination for Group A and B applicants* will be held at San Francisco in June. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Obstetrics and Gynecology: Written examinations and review of case histories for Group B candidates will be held in various cities of the United States and Canada, Nov. 6 and Feb. 6. *Application must be filed at least sixty days prior to these dates. General oral, clinical, and pathological examinations for all candidates (Groups A and B)* will be conducted in San Francisco June 13-14. *Application for admission to Group A examinations must be on file before April* 1. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6).

American Board of Opthalmology: San Francisco, June 13. *All applications and case reports, in duplicate, must be filed at least sixty days before the date of examination.* Sec., Dr. John Green, 3720 Washington Blvd., St. Louis, Mo.

American Board of Orthopaedic Surgery: Los Angeles, Jan. 14-15. Sec., Dr. Fremont A. Chandler, 6 N. Michigan Ave., Chicago.

American Board of Pediatrics: Los Angeles, Nov. 7; Boston, No. 14, and New Orleans, No. 30. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Psychiatry and Neurology: New York, Dec. 28 (tentative). Sec., Dr. Walter Freeman, 1028 Connecticut Ave., N. W., Washington, D. C.

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Footnotes, bibliographies and legends for cuts should be typed on separate sheets in double space similar to the style for the text matter. Bibliographies should conform to the style of the Quarterly Cumulative Index published by the American Medical Association. This requires in the order given: Name of author, title of article, name of periodical with volume, page, month — day of month if weekly — and year.

Used manuscript will be returned only when requested by the author. Manuscripts should not be rolled. Mail flat.

ILLUSTRATIONS—Two halftones or zinc etchings will be furnished by The Journal when satisfactory photographs or drawings are supplied by the author. Illustrations, tables, etc., should bear the author's name on the back and the figure number. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. Used photographs and drawings are returned after the article is published, if requested.

NEWS.— Our readers are requested to send in items of news, also *marked* copies of newspapers containing matter of interest to physicians. We shall be glad to know the name of the sender in every instance.

ADVERTISEMENTS.— All advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association and should reach the Editor by the tenth of the month preceding publication.

SUBSCRIPTIONS.— Membership in the Connecticut State Medical Society includes subscription to the Journal. Additional copies may be secured from the Editor.

REPRINTS.— Reprints of papers and obituaries may be obtained from the Editor at cost.

• Editorials •

THE AMERICAN BOARD OF SURGERY AND THE TRAINING OF A SURGEON

During the past few years, with the approval of the Council on Medical Education of the American Medical Association, an Advisory Board for Medical Specialties has been concerned with the organization, according to uniform standards of Qualifying Boards in some twelve of the specialties of medicine. The function of these is to set up such standards of training and achievement as are essential to the proper practise of any given specialty, and after examination, to issue certificates of qualification to those who have met such standards.

Early this year after mature consideration, representatives of the leading national and regional surgical societies organized the "American Board of Surgery" to act as a Qualifying Board in the field of general surgery, thus bringing into this plan of examination and certification the largest specialty group. This action cannot help but have an important influence upon the standards of the practise of surgery, and particularly will this be true as regards the training of surgeons.

The requirements for the latter include, after a preliminary interneship of at least a year, "not less than three years devoted to surgery taken in a recognized graduate school of medicine or in a hospital or under the sponsorship accredited by the American Board of Surgery for the training of surgeons." Knowledge of anatomy, physiology, pathology, bacteriology and biochemistry as applied to clinical surgery will be required in the examination. "Adequate operative experience in which the candidate has assumed the whole responsibility will be required. An additional period of not less than two years of study or practice in surgery."

It seems certain that at the present moment but relatively few schools or hospitals are properly organized or staffed to undertake the responsibility of training surgeons to meet these standards. Yet scarcely any one would care to say that these requirements are unreasonable for the man who is to take the responsibility of

practising general surgery as a specialty. Moreover, the number of medical schools of which many are not adequately financed for undergraduate teaching, that can obtain sufficient funds for postgraduate training of this type, will be limited. At the best probably not more than one-half of the yearly accrual of surgeons required to replace those passing out of practise can be trained in hospitals associated with schools of medicine.

A great responsibility then, perhaps rather an opportunity, falls upon those hospitals not so affiliated, but having abundant clinical and pathological material, as well as competent professional personnel with high standards of performance. Fortunately there is an ample number of such that might well function admirably as schools of training for surgery, provided they be reorganized with this objective definitely in view.

It is apparent from the requirements as stated, that the organization must ensure a graduated opportunity for experience and learning, leading in its latter period as the candidate demonstrates his fitness, to as complete a responsibility as the present "junior attending" commonly enjoys, or perhaps better should enjoy. The proper supervision of this necessitates a certain concentration of control and continuity of service on the part of the teaching staff, which will be composed of the attending surgeons of the hospital. This should be equivalent to that obtaining in a teaching hospital of any medical school, which seriously attempts to carry out postgraduate training of the surgeon.

If by inducing in this fashion many of our great hospitals to become teaching institutions, not only will the young surgeon be more adequately trained, but the hospitals themselves will be raised to new levels of performance. And the intent of the Qualifying Board will be achieved in that its action will not so much restrict the practise of surgery to those qualified as to increase the number of those properly trained for this great responsibility.

S. C. Harvey

SULFANILAMIDE

Sulfanilamide has come into wide use in a very short time. So far, only a few untoward results have been reported, although, from the nature of its composition, much of the deleterious was to be expected. That this drug, a sulphur derivative of analine, was potentially dangerous was early recognized. That it actually is dangerous, particularly to the hematopoeitic system, seems to be indicated in the recent report of two cases of acute anemia, following its administration. Cyanosis, icterus, gastro-intestinal distress, dizziness, lassitude, etc., are variable concomitants to its use, and although mild, point to an astonishingly wide interference with body organs. This drug, apparently, is not as innocuous as the detail men would have us believe. We ask, "Do the potential and actual dangers of sulfanilamide outweigh the benefits claimed for it?" We think not. The many favorable reports of its use in streptococcic infections, puerperal sepsis, meningitis, gonorrhea, etc., cannot be dismissed lightly. It may be that we are on the threshold of a new era in therapy, but, we hold, albeit somewhat grimly, to an honest belief that nothing could be that good.

The attitude of scientific medicine towards this, as well as towards other new therapeutic agents, should be one of unhurried, thorough study, followed by careful clinical trial, with results observed in the light of honest skepticism until proved beyond a shadow of doubt.

Modern medicine has out-grown haphazard indiscriminate therapeutics. "My patient had a high fever, which I couldn't explain, so I gave him sulfanilamide", is an admission of defeat, and a return to discredited methods of treatment.

Therapeutics, as well as surgery, should be directed towards a well defined target, and rarely is one justified in administering a drug simply because one knows nothing better to do.

C. M.

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THE BIRTH OF A BABY

The new talking picture film of the American Committee on Maternal Welfare, "The Birth of a Baby," is being presented throughout the land to groups of all sizes. Forty-five hundred physicians and their wives attended the preview at Atlantic City. A mere handful saw the picture at the meeting of the Gynecological and Obstetrical Section of our own State Medical

Society in New Haven recently. Fortunately the selected gathering at Stamford in August was much larger. Mead Johnson and Company has made possible this film through its generous financial aid and intelligent cooperation. The effort is being made to present the film just as ethically as it was produced. Before it is made available to the public, the profession will have an opportunity to see it in every state and also in many of the important cities.

The reception of the film on the whole has been very favorable. "Spontaneous enthusiasm and considerable praise of the acting, the photography, and of the great teaching work done by the Committee" characterized the showing at the American Medical Association Convention at Atlantic City. Rather more of the typical Yankee reserve appeared in the Section group of our State Medical Society. There were those who rose to scoff, calling it too elementary and too emotional, but the majority felt that it should serve its objective most admirably, that is, to educate the public to the need for maternal care and to the value of the physician's services. What if every obstetrician does not approve of every detail in the technique of examination as shown in the film? The great need of prenatal care, faithful attention throughout delivery, and an intelligent understanding of the patient as an individual are important.

One of the most striking and commendable episodes in the entire film appears in the distraught seeking aid from the physician to produce an abortion. The rising generation today learn all to quickly from the wrong sources. If this film accomplishes no other purpose than to inform our young men and young women of the dangers of abortion it will have done our nation an invaluable service.

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THE CLINICAL CONGRESS AFTER THIRTEEN YEARS

Thirteen years ago The Connecticut Medical Society sponsored an experiment in postgraduate education which we know as The Connecticut Clinical Congress. A truly pioneering enterprise, this effort has become an achievement of, which Connecticut physicians may well be proud. One measure of this success may be gained from the registration this year which numbered the names of 694 physicians, 84 of whom came from outside of our state.

A number of features in the operation of our Congress are somewhat unique in institutions of this kind and some of these may be brought to mind. First, the administration and direction of the Congress is under a special committee elected each year for the specific purpose. Secondly, programs are made up each year from suggestions received from a large group of practitioners representing various localities in the state. In this way the program is directed toward the needs of the practitioner of general medicine. In addition, the special sections of the State Society arrange evening meetings for their groups at which all members of the Congress may attend. Speakers chosen for the program are outstanding authorities in the various fields and their ability to adequately present their subjects is carefully considered. Fourth, from its inception the intimate association of the Congress with the Yale School of Medicine has been of twofold benefit. It has served to make the members of the Congress familiar with the work of this important teaching center and it has given that institution the opportunity to serve the medical profession of Connecticut in a most tangible manner. In this way the fine traditions of the beginnings of this medical institution as a joint enterprise between The Connecticut Medical Society and Yale are preserved and enhanced by the spirit of fine cooperation, that has characterized the Congress from its beginning.

Lastly, the success of the Congress is due in greatest measure to the untiring efforts of those of our members who serve on the various committees which are responsible for its excellent management. To them the entire medical community of New England owes a debt of gratitude.

The members of our Society who year after year support the Clinical Congress by working for its success and by attending its meetings need no emphasis on the great benefit derived from such action. Members who do not embrace these opportunities are depriving themselves of a truly valuable experience.

H.T.

CAESARIAN SECTION AND MATERNAL MORTALITY

From Georgia there has appeared recently a report of the Committee for the Study of Maternal Mortality and Infant Deaths in that particular state society (Journal of the Medical Association of Georgia, August, 1937). Georgia's puerperal death rate for 1936 was 7.8, higher than that for the entire country. If one excludes everything except the full-time delivery, however, the rate is 4.8. Eclampsia, sepsis and abortions accounted for exactly two-thirds of the total puerperal deaths. When one considers that there were 352 unattended births and 40.4% of all births in that state were attended by midwives during 1936, it seems almost a miracle that the physicians of the state have succeeded in reducing the birth rate as they have.

An anlaysis of 158 caesarianized obstetrical patients at the University Hospital, Ann Arbor, Michigan, was published in the Journal of the Michigan State Medical Society, August, 1937. This report covers a period of thirty years. Not a large group in itself, it is true, but affording rather striking results. The maternal death rate in this group has gradually diminished from 30% in 1912-1916 to 0% for the past 4½ years. During this period of no deaths there has been an increasing preference for the low type of operation. The most frequent cause of death was sepsis.

Elsewhere in this issue appears some very interesting facts collected and presented by the able Professor of Obstetrics at Harvard Medical School, Dr. Frederick C. Irving. These facts merit careful consideration. Without any question the popularity of Caesarian section throughout this country is increasing. As Dr. Irving states the best way to reduce the Caesarian section mortality is to reduce the incidence of Caesarian sections.

In our own state we have been particularly fortunate. The statistics from the New Haven and the Hartford Hospitals as presented at the recent Clinical Congress bear witness. At the Hartford Hospital with a steadily increasing incidence of Caesarians over the past 20 years there has been a steadily declining mortality up to the last two years where it has remained stationary at less than 1%. These statistics should not give us a false sense of security. Sepsis continues to take its toll and against the inroads of this one factor constant vigilance is necessary.

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GIFT TO YALE UNIVERSITY FOR CANCER RESEARCH

In June the President of Yale announced the establishment of the Jane Coffin Memorial Fund for Medical Research. The fund, with a capitalization amounting to approximately $4,000,000 is the gift of Mr. Starling W. Childs, '91, and Miss Alice S. Coffin in memory of the late Mrs. Starling W. Childs.

The resources of this foundation will be devoted primarily to research into the etiology of cancer. Some provision is made for the study of the treatment of cancer but the therapeutic investigations are to be regarded as adjuncts to research into causes. The future usefulness of the fund is safeguarded by terms in the deed of gift allowing the fund to be used for reasearch into some other unsolved problem of medicine or into some other field of science in case it is decided at any time that the cause and treatment of cancer have been sufficiently determined.

This great fund is entrusted to Yale for use in making grants-in-aid for research on cancer not only at Yale but also in other places in this country and abroad. Final authority for the administration of the fund rests with a Board of Managers. The scientific administration of the fund will be conducted by a Board of Scientific Advisors of which Dr. Stanhope Bayne-Jones, Dean of the School of Medicine, is Chairman and Director.

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PRESIDENT TURKINGTON'S FATHER DIES

We note with regret the rather sudden death of Frank H. Turkington, father of our State Society president. Active as sheriff of Litchfield County until a few days before his death at the age of 83, he will be greatly missed in a section of the state where he has given a life of service. He was a versatile man, interested in people and in the many phases of life which are so vital in a rural community. The *Journal* expresses to Dr. Charlie the sympathy of the entire Society.

DR. GEORGE H. SIMMONS
1852 - 1937

Dr. George H. Simmons, Editor and General Manager Emeritus of The Journal of the American Medical Association, died at St. Luke's Hospital, Chicago, September 1, 1937.

Doctor Simmons was born in Moreton, England, January 2, 1862. He came to the United States in 1870, and studied at Tabor College in Iowa in 1871 and 1872 and at the University of Nebraska from 1872 to 1876. He received his M.D. degree from the Hahnemann Medical College, Chicago, in 1882 and was awarded the M.D. degree by Rush Medical College, following additional study, in 1892. In 1884, previous to his study at Rush Medical College, he served in the Rotunda Hospital in Dublin. From 1884 to 1899 he practiced medicine in Lincoln, Nebraska. In 1896 he established the Western Medical Review, acting as its editor, and from 1895 to 1899 he was secretary of the Nebraska State Medical Society and also secretary of the Western Surgical and Gynecological Society. During this early period of his development he gave indications of the editorial genius which was later to bring him world-wide fame. While a freshman in the University of Nebraska he won an important prize for an essay on the sheep industry. At this time he was acting editor of the Nebraska *Farmer*, assistant city editor of the Nebraska *State Journal* and field correspondent of the Omaha Republican and the Kansas City *Journal*. With these odd jobs he aided in paying his way through the university and the medical school, and he developed a taste for the use of printer's ink which followed him throughout his life.

In Lincoln, Nebraska, he became known as a leader in reform movements. At one time he led an attack to take the government of Lincoln, Nebraska, out of the hands of the machine politicians and to restore it to the people. A resolution adopted by the Chamber of Commerce of Lincoln, Nebraska, indicated the willingness of the city fathers to admit the debt of that city to Dr. George H. Simmons for much of its political cleanliness and financial soundness.

In 1899, when the Board of Trustees of the American Medical Association was in search of a secretary for the organization and an editor for its periodicals, a number of leading figures in the medical literary and political world were given consideration. They appeared before the Board of Trustees, many of them with strong endorsements. After long consideration the Board of Trustees chose Dr. George H. Simmons for the position of General Secretary, which he filled from 1899 to 1911, and of editor, which he occupied until 1924. In 1901 he became also general manager. Before its reorganization in 1901 the American Medical Association was not a truly representative body, and the method of administration of its professional affairs and its business were, to say the least, disorganized. When Doctor Simmons became Secretary in 1899 he initiated the movement which led to the appointment of a committee of which Dr. J. N. McCormack of Kentucky was chairman and he secretary to consider ways and means of reorganization. At the meeting of the Association in St. Paul in 1901 the general principles and policies outlined in the Constitution and By-Laws presented by that committee were adopted. The present plan of organization of the American Medical Association is largely due to the work of that committee.

The Journal of the American Medical Association was established in 1883. When Doctor Simmons took over the editorial supervision and management, its total subscription list was approximately ten thousand. From that time it showed continuous improvement. Furthermore, under his leadership it became a significant weapon in the initiation and progress of great movements for the advancement of medical education and medical science. In 1901 The Journal began the annual publication of information concerning the medical schools of the country. In 1903 it undertook publication of the results of the graduates in medicine for licensure by state examining boards. The next step was the organization of the Council on Medical Education and Hospitals in 1905. At the same time the Council on Pharmacy and Chemistry was developed, and in association with it the chemical laboratory and the Department of Propaganda for Reform, which eventually became the Bureau of Investigation. Thereafter came other councils and departments which were logically an outgrowth of the developments that have been mentioned. In the field of publication The Journal was supplemented by the American

Medical Directory, which was an outgrowth of the Biographic Department; the various Archives; of Internal Medicine, of Neurology and Psychiatry, of Dermatology and Syphilology and of Surgery; the American Journal of Diseases of Children, and many other publications. It occurred to Doctor Simmons to begin publication of a quarterly cumulative index of leading medical publications as a means of providing physicians with up-to-the-minute references to medical periodical literature in an easily accessible form. The success of this publication was so great that it eventually was combined with the Index Medicus into the Quarterly Cumulative Index Medicus. Hygeia, too, was initiated under Doctor Simmons' leadership as General Manager. To tell the story of Doctor Simmons' services in the period from 1899 to 1924, is, in fact, to tell the history of the American Medical Association in that same period.

In 1908 he was commissioned a First Lieutenant in the Medical Reserve Corps of the United States Army; in 1917, when the United States entered the war, he was made Major in the Medical Reserve Corps, and served diligently in the Personnel Division. In 1921, by order of President Harding, he was awarded the Distinguished Service Medal.

As an editor, Dr. George H. Simmons was alert and fearless. His attacks on quackery and fraud in the field of medicine brought on his unwearying head and shoulders the counter attacks of those who saw their unscrupulous exploitations exposed and their incomes discontinued. It was his policy never to reply to any of the personal attacks made on him in the course of his service. Innumerable medical writers could testify to the manner in which he devoted himself personally to the education of younger men in editorial technic. His personal writings were few, but much of what he wrote and developed appeared anonymously in the pages of The Journal. His published papers include, however, one on medical education and preliminary requirements, which appeared in The Journal in 1904; one on the American Medical Association, published in The Journal, June 2, 1906; one on the commercial domination of therapeutics and the movement for reform, and another under the title "What the American Medical Association Stands For." In 1914 he read a paper before the Southern Medical Association, entitled, "Work of the Council on Pharmacy and Chemistry: Its Effect on Medical Progress"; and as president of the Institute of Medicine of Chicago, which position he held in 1921, he read an address under the title, "Medical Periodical Literature."

In 1932 he resigned as Editor and General Manager of the American Medical Association and became Editor and General Manager Emeritus. At that time a number of leaders in American medicine arranged for the painting of his portrait, which was presented to him at a testimonial banquet in Chicago on June 9, 1924. Hundreds of physicians attended, and he received messages of appreciation and congratulations from all over the world.

This, then, is briefly the record of Dr. George H. Simmons as an executive and an administrator. His work for the American Medical Association was characterized by intelligence, unselfishness, initiative and righteousness. In his personal life he had his share of physical and mental suffering. He weathered storms of unjust criticism and false characterization of his administration. He devoted himself almost objectively and completely devoid of personal interest to the public career which he had chosen. Unquestionably he was the greatest factor in his generation in the development of the American Medical Association and the profession that it represents.

After his retirement he traveled extensively for several years. Since that time he has resided in Florida, but has spent some time every other year in Great Britain and in the intervening years in Chicago, frequently coming to the headquarters office and making available to his successors the experience of years and the brilliant insight which he brought into medical problems. The medical profession of the United States owes him a debt which it could never pay and which he never wished to collect.

From the Secretary's Office

CREIGHTON BARKER, M.D.
258 Church Street New Haven

This office is deeply indebted to Doctor Walter Steiner and Doctor Millard Knowlton for their generosity in completing the files of the Transactions of the Society. We now have a complete file from 1792 to date, including the Reprint. Doctor George P. Coopernail of Bedford, New York has also generously donated to this office a large amount of early memorabilia which, it is hoped, may serve as a nucleus around which an interesting and valuable collection of Connecticut medical items may be built. If there are members of the Society who have pamphlets, medical school catalogs or any intimate medical papers from past years which they would be willing to give to the Society's collection, we will be grateful. We have duplicates of many years of the State Transactions, and if there are medical libraries in the State whose runs are not complete, we will be glad to supply what we can.

The Council at its September meeting held during the Clinical Congress appointed Doctor D. Chester Brown and Doctor Stanhope Bayne-Jones as delegates to the Annual Meeting of the Medical Society of the State of New York to be held in May 1938. Our Society exchanged delegates with the New York State Society for many years, but the custom was allowed to lapse about 40 years ago and it is pleasant to have it renewed.

The Secretary wishes to congratulate the Clinical Congress Committee for the splendid success with the Congress this year. The enrollment was nearly 700, the largest it has ever been, and the Congress has now taken its well merited place as the leading medical meeting in New England.

The plans for the Annual Meeting of the Society at the Hotel Griswold in Groton are progressing, and every effort is being made by the New London County local committee to make this meeting a great success. Because of the many attractions of the resort it will be an interesting innovation for our Society to meet at the Griswold. Let us all plan to be there. The dates are June 1st and 2nd. Arrangements in New London are being made by the County Association Committee: John W. Callahan, R. F. Cantrell, George P. Cheney, Edmund L. Douglass, William T. Driscoll, Walter A. Lukoski, Hugh F. Lena, Abraham J. Leon, Joseph J. Mahoney, C. Michell, John Satti, John G. Raymer, Harold W. Wellington, and Lewis Sears.

The Secretary will appreciate it if the members who are contemplating going to San Francisco for the Annual Meeting of the American Medical Association in June 1938 will communicate with this office as early as possible. We will try to be of assistance in arranging transportation and accommodations for you, and it will all be simpler if we may have some idea as to what the needs of our members will be.

The attention of our members is directed to the urgent need for retrenchment in the Bureau of Laboratories in the State Department of Health. Additional funds were not forthcoming from the last General Assembly to provide for the expenses incident to the increasing activities of the Department's laboratories, and certain of the less important of laboratory procedures have had to be discontinued. Tolerant and understanding cooperation on the part of our members will increase the usefulness of the laboratories when actually needed. Postage for the return of reports from the laboratories should always be included when specimens are submitted.

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CRUISE OF PAN-AMERICAN MEDICAL ASSOCIATION

The Seventh Cruise Congress of the Pan-American Medical Association will take the form of a cruise to Cuba and the West Indies. The S.S. "Queen of Bermuda" has been chartered, sailing from New York City on January 15, 1938. Five days will be spent in Havana. Port-au-Prince, Haiti, Trujillo City, San Domingo, and San Juan, Porto Rico will be visited before arriving in New York on January 31. Rates $185 to $500. Joseph J. Eller, M.D., Director General, Pan-American Medical Association, 745 Fifth Avenue, New York.

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AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

The first West Coast meeting of the American Academy of Orthopaedic Surgeons will be held on January 16-20, 1938, at the Hotel Biltmore, Los Angeles. Special trains will be run with stop-overs at Santa Fe, the Grand Canyon, San Francisco and other points. For further information write to Robert L. Lewin, Hotel Biltmore, Los Angeles, California.

• OUR NEIGHBORS •

OPPORTUNITY FOR RURAL PHYSICIANS OF NEW ENGLAND

Through the generosity of William Bingham 2d, a medical center has been created in Boston for the rural physicians of New England that they may pursue postgraduate study at no expense to themselves. To quote Dr. Ralph W. Wakefield, President of the Maine Medical Society: "Never was there a time when a physician or a surgeon was obliged to do so much studying and traveling to the larger medical centers in quest of knowledge in order to keep abreast of the times". Mr. Bingham's gift makes possible fellowships for a month's work in general medicine at the New England center, together with a stipend of $250.00. So-called exchange doctors will be arranged for to substitute for the absent doctors in their home towns.

Four-week courses are being planned for the months of October and November, 1937, and January, March and May, 1938. Six fellowships are offered for each of these months. This postgraduate work is under the auspices of the Medical Department of the Boston Dispensary and Tufts College Medical School. All of the instructors are men of high standing and the various courses will be up-to-date and authoritative.

The physicians of Maine, New Hampshire and Vermont have an opportunity for study unsurpassed in the medical history of New England. The President of the Maine Medical Society has issued a special call to his own members to avail themselves of this opportunity to the limit.

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NEW HAMPSHIRE

On September 1 the State of New Hampshire put into operation what has been described as "one of the most drastic motor-vehicle financial-responsibility laws in the United States." It is essentially compulsory insurance since it requires every registrant of a motor vehicle to state whether any money is owed for it and whether it carries any lien or mortgage. If such is the case, the owner must assume financial responsibility and insurance is the easiest way of doing this. The Commissioner has agreed to an increase in premiums of 25 and 50% respectively, for persons convicted of reckless driving and of drunken driving.

N. Y. Times, Sept. 5, 1937.

It is interesting to note that the Hartford Accident and Indemnity Company which has been handling the physicians' liability insurance for the members of the New Hampshire Medical Society on a group plan has been obliged to raise the premium rate to $55.00 per member per year. Loses over a period of four years necessitated this increase. There are probably two reasons for this high rate. First, the insurance company carries but 52% of the Society members. Second, the experience with suits brought against physicians in that state has been "unusually bad," to quote a representative of the insurance company. Some physicians feel that if a claim is placed against them they should conceal it and handle it themselves. About three-quarters of the suits for malpractice in New Hampshire arise from some unfortunate and perhaps unintentional comment made by some physician who happens to see a case that has been treated by another doctor.

In 1936 there was a large influx of claims. During the first five months of the current year they have dropped off in comparison.

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MASSACHUSETTS

Named to Harvard Faculty Post

Dr. Alan Richard Moritz, associate professor of pathology, Western Reserve University School of Medicine and, pathologist of University Hospitals, Cleveland, has been appointed professor of legal medicine at Harvard University Medical School. Dr. Moritz will leave Cleveland in October to spend the next two years studying legal medicine in Europe, after which he will assume his new post at Harvard.

Amherst College, Amherst, conferred the honorary degree of doctor of science on Dr. Stephen Rushmore, Boston, recently, and Colby College, Waterville, Maine, a similar degree on Dr. Harris P. Mosher, also of Boston.

Lieut.-Col. James S. Simmons, Boston, received the degree of doctor of science from Davidson College, N. C., at its centennial exercises, June 8.

Attorney General of Massachusetts Opposes Corporate Practice of Professions

The Attorney General of Massachusetts in his report to the General Court for the year ending November 30, 1936, states that the practice of a profession such as medicine, dentistry, optometry, and the like, is not a business open to all, but is a personal right limited to persons of good moral character with special qualifications. As these conditions cannot be fulfilled by corporations or lay persons it follows that the practice of a profession is not one in which a corporation should engage. He has suggested that it might be advisable for the General Court to appoint a recess commission to study the subject of exploitation of professions with power to recommend such proposals as it feels practical in the premises. —*N. E. Jour. Med., July* 15, 1937.

Tufts Medical College School Campaign

The Board of Trustees of Tufts College Medical School recently decided to go to the public of New England for $2,000,000. This is to be the first step in what will ultimately be a $5,000,000 fund for the Medical School. The $2,000,000 now being sought will be used to build and equip a surgical unit as part of the New England Medical Center, to create a fund for its maintenance, for additional professorships, and for equipment at the Medical School. Dr. A. Warren Stearns, Dean, is interested in turning out better equipped "family doctors". He states that the weak point in the New England Medical Center has been its lack of facilities for following through on surgical cases. He expects the new surgical unit to overcome this defect.

The New England Medical Center, which is composed of three cooperating units,— the Boston Dispensary, the Boston Floating Hospital, the Tufts College Medical School,— serves a threefold function. To the patient without money, or with very limited means, it brings the best possible medical aid; to the practising physicians, particularly those of rural New England communities, it provides an organization for diagnosis of complex medical problems; for the Tufts College Medical School, which provides more practising physicians for New England than any other educational agency, it provides teaching facilities, through which much of the third and fourth year work is accomplished.

Middlesex University

Governor Charles F. Hurley recently signed the legislative act establishing Middlesex University. The charter provides that the new university shall take over all the powers and property of Middlesex College and the University of Massachusetts, including the 96-acre Waltham campus with its new group of medical school buildings and the school building at 415 Newbury Street, Boston.

The provisions of the charter are very similar to those under which Tufts College and Boston University were incorporated, and include the right to grant several college and professional degrees, including the medical degree.

The trustees named in the new Middlesex University charter include John H. Smith, M.D., of Waltham, Frank L. Whipple, M.D., of Lynn, Horatio S. Card, M.D., of Boston, Howard C. Gale, M.D., of Beverly, John M. Russell, of Watertown, and C. Ruggles Smith, of Boston.

The university is authorized to receive and hold real or personal estate by gift, grant, devise or bequest to an amount not to exceed $5,000,000 and the charter provides that the clear income of the university shall be applied exclusively to its endowment so as to promote most effectually its general educational purposes.

—*N. E. Jour. Med., June* 17, 1937

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ROCKY MOUNTAIN SPOTTED FEVER IN RHODE ISLAND

The Rhode Island Medical Journal, September, 1937, contains a report of two cases of Rocky Mountain Spotted Fever discovered in that State. The diagnosis of the two cases has been confirmed clinically and serologically and both have been hospitalized at the Charles V. Chapin Hospital in Providence. According to information received at the Bureau of Preventable

Disease, Rhode Island Department of Public Health, these are the first instances of the disease in New England. Investigation shows that the onset of the disease in both cases followed tick bites received while the patients were summer visitors in East Brewster, Massachusetts.

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FROM NEW YORK STATE

New Department Heads at Albany Medical College

Dr. Joseph Lewi Donhauser, associate professor of surgery, Albany Medical College, has been appointed professor of surgery and executive head of the department of surgery to succeed Dr. Arthur W. Elting, who retired July 1. Dr. Lemuel Whittington Gorham, associate professor of medicine, will succeed Dr. Thomas Ordway as professor of medicine and executive head of that department, and Dr. Arthur J. Wallingford, associate in gynecology, will succeed Dr. John A. Sampson as professor and head of the department of gynecology. Dr. Donhauser and Dr. Wallingford are graduates of Albany; Dr. Gorham graduated from Johns Hopkins University School of Medicine, Baltimore. In addition to the teaching appointments, Dr. Donhauser becomes surgeon in chief at Albany Hospital and Dr. Gorham consulting physician.

Dr. James Alexander Miller received the honorary doctorate of public health at the recent annual commencement of New York University.

Dr. Royal Whitman has been elected an honorary fellow of the Royal Society of Medicine of London.

The Rev. George F. Clover, superintendent of St. Luke's Hospital, New York City, from 1900 until his recent retirement because of ill health, died July 18 at his summer home in Norfolk, Conn. Dr. Claude W. Munger, former superintendent of Grasslands Hospital, Valhalla, succeeded Mr. Clover as superintendent of St. Luke's last April.

Dr. Cunningham Appointed Dean at Albany

Dr. Robert Sydney Cunningham, professor of anatomy at Vanderbilt University School of Medicine, Nashville, Tenn., has been appointed dean of Albany Medical College, Albany, to succeed Dr. Thomas Ordway. Dr. Cunningham is a native of South Carolina and graduated from Johns Hopkins University School of Medicine, Baltimore, in 1915. He was a member of the faculty of Johns Hopkins from 1915 to 1925, when he went to Vanderbilt as professor of anatomy. He will also hold a professorship of anatomy at Albany.

The Eight-Hour Nursing Day in the New York Hospitals

The change to eight-hour shifts in the New York City hospitals on July 1 necessitated the employment of 2793 additional persons, according to Commissioner Goldwater. Of these 1100 in the non-nursing groups came from the WPA roles, but only 151 nurses were obtainable from that source. In its efforts to get nurses the department wrote to more than 1400 schools of nursing, made an extensive advertising campaign, and conducted recruiting drives in local districts, with very satisfactory results. For many of the nurses the inauguration of the new working schedule meant real leisure for the first time in a dozen years. Breakfast in bed, sun bathing, time to read the papers, the movies — all that sort of a thing heretofore seldom tasted.

N. Y. State Jour. Med., August 15, 1937.

Westchester County Medical Society Opposes New System of Medical Relief

Throughout this country during the past year a new system of medical relief has gradually come into existence, promoted by relief authorities and recently endorsed by the New York State Conference of Mayors. This is a contract scheme whereby a very limited number of physicians are engaged on salary for part-time service. There is no such thing as freedom of choice in this system.

The Westchester Medical Society is opposing contract practice by the municipality because it is unethical and because its success is measured by the extent to which it further reduces the remuneration of the physician and more particularly because it is an elementary example of state medicine in its crudest form. In opposing this contract the Westchester Society came to the conclusion that the plan of medical service developed under the new Workmen's Compensation Law had proved so successful during its two years of trial that it could safely be recommended as a solution for the problem of medical relief administration. *Westch. Med. Bull., July*, 1937.

NEW JERSEY

Court Upholds Max Plager's Blood Pressure Business

The Supreme Court of New Jersey recently sustained a decision of the Atlantic County court acquitting one Max Plager, who takes the blood pressure of his consumers in a concession on the Boardwalk at Atlantic City, of the charge of practicing medicine illegally. The justice said in an opinion handed down July 22 that blood pressure was not a disease and thus far the law did not restrict its determination to physicians. Newspapers stated that Plager offered evidence to show that he did not give medical advice. The State Board of Medical Examiners prosecuted the case.

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SIR SQUIRE SPRIGGE

The *Journal* takes this opportunity to add its humble tribute to the memory of an eminent journalist, Sir Squire Sprigge, until his death on June 17, editor of the London Lancet. His was indeed a great career. The son of a physician, he became sole editor of that medical journal at the age of 48. He has contributed largely to medical and general literature and always showed a keen insight into medical problems. Medical advancement in the British Isles owes much to his influence.

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CONGRESS PASSES A BILL AUTHORIZING CANCER RESEARCH

At the last session of Congress a bill was passed authorizing the appropriation of $750,000 for the erection and equipment of a suitable and adequate building and facilities for the use of a National Cancer Institute. This Institute is established also by Congress "for the purposes of conducting researches, investigations, experiments, and studies relating to the cause, diagnosis, and treatment of cancer," and is to be a division of the Public Health Service. In addition to the above appropriation a sum of $700,000 is authorized for each fiscal year, beginning with the fiscal year ending June 30, 1938, for the purpose of carrying out the provisions of the National Cancer Institute Act. Much interesting and instructive data was brought to light in the Joint Hearings on the bill. Olin West, M.D., Secretary of the American Medical Association, offered some very pertinent suggestions. Through him the Trustees of the American Medical Association placed at the disposal of Congress any facilities which might be theirs and which could be used in planning this new venture.

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GYNECOLOGIC SYMPTOMS IN ACUTE ANTERIOR POLIOMYELITIS

In the epidemic of acute anterior poliomyelitis in Los Angeles in 1934 and 1935 many unusual symptoms and physical findings were observed. Young in California and Western Medicine, August 1937, calls attention to dysmenorrhea as being the most prominent gynecologic complaint present in the 112 consecutive patients studied. The dysmenorrheas were apparently of the primary type, based on dysfunction of the endrocrine glands. Psychoneuroses were found to be important as probable etiologic factors in producing the symptom of dysmenorrhea. Treatment of this problem has not been entirely satisfactory to date, largely due to a lack of individualization of the cases. The problem seemed to the writer a very important one, both medically and economically.

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"A WORLD OF HEALTH" AT THE NEW YORK WORLD'S FAIR 1939



This photograph is of a scale model of a building to be erected by the New York World's Fair 1939 to house an extensive exhibit which may be called "A World of Health". This exhibit, surrounding the Fair's local display, will portray the latest advancement in every phase of medicine and the safeguarding of health.

Among the exhibits will be models of various parts of the human body large enough to permit visitors to enter them and thus become intimately acquainted with their mechanisms. One, as now planned, will be that of the eye, within which a visitor may see the world outside as it appears to those of imperfect as well as normal vision, and be able to manipulate levers to reproduce the action of the delicate pupil as it encounters difference intensities of light. Another planned model will be that of the skull, within which visitors may walk and learn in dramatic fashion the details of its intricate structure.

The building will be located on the Theme Plaza of the Fair and will cost about $425,000.

HELPING VICTIMS OF THE GREAT FLOOD

Providing adequate medical and nursing care for ill flood victims and guarding against epidemics among the many refugees temporarily housed in public buildings and tent camps was an important part of the Red Cross disaster relief job last winter, when the Ohio and Mississippi Rivers overflowed their banks.

Red Cross doctors and nursers, working in conjunction with local physicians and health authorities, did yeoman service in the 300 emergency field hospitals and 1000 centers and camps where refugees were temporarily cared for by the Red Cross. It is due largely to their splendid work that no serious outbreak of communicable disease occurred.

Many thousands of the families in the path of the flood were without the resources to repair their homes or to replace ruined furniture. These turned to the Red Cross for help in rehabilitation. Each family was registered, its needs and losses were studied by trained workers and Red Cross awards were made to those families who needed this help.

To meet this great need the Red Cross appealed to the American people for flood relief funds and a most generous response, totaling a little more than $25,000,000 was received in a short time. Large as was the amount of this fund, it was all needed and used to meet the emergency and rehabilitation needs of the flood-affected families.

Disaster relief is only one phase of Red Cross work, which includes public health nursing, assistance to war disabled veterans and men in the armed forces of our country and their dependents, instruction in first aid and water life-saving, highway first-aid, instruction in home care of the sick, the making of garments for needy families, producing books in Braille for the blind, and a home and farm accident prevention program. These several programs are carried on by the Red Cross Chapters and Branches, located in practically every county in the United States and derive their support from the annual Red Cross Roll Call, as does the national work of the organization.



Everyone can have a part in disaster relief and all other Red Cross work by joining a local Chapter during the Roll Call, held from November 11th to 25th.

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CHEMICAL WARFARE DEVELOPMENT SINCE THE WORLD WAR

The following conclusions were reached by Colonel Adelno Gibson, U. S. Army, in an address recently before The New York Academy of Medicine:

1. There is no practically way of prohibiting or regulating chemical research or the development and manufacture of war chemicals because they are either the chemicals of industry or closely allied thereto.

2. Chemical warfare as evidenced by the World War statistics is the most effective method of using force yet devised by man, with relatively slight destruction of life and property and the minimum of human suffering and after effects.

Propaganda and sentimental considerations deny this. An objective study of the facts confirms the truth of the statement.

3. Chemical warfare will be an important weapon in a future war. In the history of warfare no effective once adopted has ever been abandoned until rendered obsolete. Chemical warfare is decidedly effective.

4. The mathematical probabilities are against the discovery of new and more powerful chemical warfare agents. However, continuous research must be carried on as part of an efficient National Defense organization.

Future developments in chemical warfare lie along the lines of more effective use of the agents already known and more effective means of protection against the same.

5. By reason of the abundance of the raw materials required in its manufacture (table salt, water, coal, sulphur and alcohol), the development of the technique of manufacture on a large scale by most countries and the tactical value of the agent, mustard gas will probably be the most important chemical warfare agent in a future war. But the effect on tactics and on the functioning of the Medical Corps will be marked.

6. Mustard gas in the future will produce far more casualties than were produced by any weapon in the World War but they will be light, with few deaths, relatively little suffering and relatively negligible after effects.

7. Until a volitile vesicant is discovered, gas warfare as it stands today and as it will stand in the future, is a more powerful defensive than offensive weapon. This fact arises primarily because mustard gas and similar gases, can be used to make difficult the occupation of or passing over terrain. Hence, it can always be used by a retreating force or by a force on the defensive; whereas, its use by force on the offensive would tend to block the progress of the army using the gas. This does not mean that an attacker would be absolutely precluded from using mustard gas on an enemy area and then attacking through the area. This might well be a sound maneuver particularly if the attacker was well equipped with protective clothing which the defender lacked.

Care should be taken to avoid absolutes in the discussion of chemical warfare and to deal in relative terms. Mustard gas would be a great obstacle to the landing of troops. While as now used by aeroplane, artillery, or other weapons, mustard gas is more valuable as a means of defense than of offense, the discovery of a gas of the mustard type but which was volatile and quick acting might readily reverse this situation. We must be prepared mentally and technically for rapid changes in conditions of warfare.

8. The United States is the only country in the world that by reason of its industrial development and natural resources has all the manufacturing capacities and all the raw materials (or substitutes therefore) for carrying on any type of chemical warfare.

9. Our national military policy is solely one of defense for which the chemical weapon is peculiarly suited. The question asked by Dr. Mills, Professor of Chemistry in the University of South Carolina, is pertinent:

"Shall we solemnly set forth that certain chemical compounds shall not be used to defend those that discovered them? Shall we insist that with cheap and effective weapons at hand, the cheap and effective weapons should be discarded and that a more expensive (and, as a matter of fact, more brutal) armament should be maintained?"

10. Armor, not against cutting or thrusting weapons or metal projectiles but against molecules, will characterize troops of the future. Uniform clothing must afford protection against blistering gas while allowing free circulation of air. Any army not so equipped will certainly go down in defeat before an otherwise equal force with protective clothing and means of spraying mustard gas. Troops without protective clothing would find difficulty operating even in tear gas spray, particularly on a hot day.

11. Weapons, tools, etc., sprayed with mustard gas cannot be used until decontaminated. Food and water must be protected from the spray. These present important problems in equipment and training not yet met by our Army.

12. Chemical warfare as evidenced by our World War experience is not a menace to civilization but the contribution of science toward halting the destructiveness of war.

13. Aeroplanes and chemical warfare give to a nation a powerful means of defense in time of emergency without serious expenditure in time of peace. This means national security without

large national armaments, thus making for the future peace of the world.

14. The Medical Corps has an important problem not only in caring for gas casualties but in preventing their occurrence. This requires a very considerable training and knowledge not now possessed by the Corps in general.

15. I would emphasize that all which I have previously said seems to lead logically to the conclusion that an otherwise most efficient national defense system may be rendered nugatory without chemical warfare preparation, and as yet we have not made this preparation.—*Bull. N. Y. Acad. Med., July,* 1937.

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CONNECTICUT FRACTURE COMMITTEE OF THE AMERICAN COLLEGE OF SURGEONS

The Connecticut Fracture Committee Meeting was held in the Surgical Amphitheatre, Farnam Memorial Building, New Haven, in conjunction with the Clinical Congress, September 23. The meeting was well attended and a number of interesting matters brought up.

The Fracture Committee very much desire that a uniform fracture record sheet may be incorporated in the charts of all patients in the hospitals of our State, from which it will be easy to compile statistics of a uniform nature.

The Committee urges each doctor in Connecticut to make himself familiar with the emergency splints and encourages the doctors who are apt to meet with fractures on the road to equip themselves with the splints which may be carried in the trunk on the back of the car.

The Aetna Casualty & Surety Company has developed a moving picture film under the direction of the Fracture Committee, which shows in detail the use and application of the splints, and hope to have it shown at enough medical society meetings in the future so that all the doctors may become thoroughly familiar with them. This sixteen millimeter silent film, which requires about fifteen minutes, may be borrowed by any hospital, medical society, or first-aid class upon request to the Aetna Casualty & Surety Company, Hartford, Connecticut, and it is hoped that the film may be viewed very widely by those interested.

R. M. YERGASON, M.D.
October 6, 1937 Secretary

TO AMERICA'S SCHOOLS — YOUR HEALTH!

Once more, during the coming fall, winter and spring, the Voices of Medicine will salute the people of America, with the toast "YOUR HEALTH." This is the well-known title of the radio program of the American Medical Association and the National Broadcasting Company. The coming season will be the fifth; the first two years were devoted to health talks, and the last two seasons to dramatized health messages. This year, the salutation will be addressed particularly to the teachers and students in the Junior and Senior high schools, in the hope that the program will be helpful in illustrating, amplifying, and enriching the health teaching in those schools. The program will be on the air while schools are in session, so that the program may be utilized directly in the thousands of schools which now have or soon will have radio and public address systems reaching the classrooms. Programs will be announced in advance in HYGEIA, The Health Magazine. While the program is planned especially for high schools, it will not sacrifice the interest which it has held for listeners in the home. To teachers, students and stay-at-homes, the American Medical Association and the National Broadcasting Company will address their message of health education with the familiar musical theme HALE AND HEARTY, written especially for the program, and the toast, "To America's Schools, YOUR HEALTH!"

Radio Health Program of the American Medical Association and the National Broadcasting Company

The list of stations in this vicinity to which the program is available appears herewith. It should be noted that any station may or may not broadcast the program. Neither the American Medical Association nor the National Broadcasting Company has any control over local broadcasting, since this is a noncommercial program. Evidence of local interest may have influence with station managements.

The program will be presented in nine groups of four programs each, beginning October 13, 1937, and running consecutively through June 15, 1938. Individual programs may be subject to cancelation for national or international emergencies calling for concentration of radio

time in imperative public service. In such cases the subsequent dates will not be affected, but the canceled program will simply be dropped.

Dates and Topics of Weekly Broadcasts 1937

Personal Health

November 3 — Striving for Better Bodies; so-called physical defects; their recognition; what can be done about them.

Hygiene

November 10 — Playing for Fun; health values and hazards in sports and recreation, including football.

November 17 — Fresh Air, Fresh Clothes and Fresh Skin; ventilation; clothing; bathing.

November 24 — Rest, Relaxation, Refreshment: all work and no play, or all play and no rest — bad for health.

December 1 — Tuberculosis, Foe of Youth: how bad habits of hygiene and unwise living, plus infection, favor tuberculosis.

Diet

December 8 — It Takes All Good Foods.

A well rounded diet and how to get it.

December 15 — Milk from Farm to Table.

The production, transportation, pasteurization and home care of milk; its place in the diet; processed milks.

December 22 — Vitamins, Minerals and Common Sense.

More about a balanced diet in special relation to minerals and vitamins.

December 29 — Dietary Fads.

Facts versus fallacies in relation to prevalent false notions about diet.

WEAF — New York WNAC — Boston
WTIC — Hartford WJAR — Providence
WTAG — Worcester

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PRODUCTION OF RADIUM IN MOVIES

The closely guarded processes of radium manufacture were portrayed to the public for the first time in moving pictures in an exclusive reel shown at theatres throughout the country during the week of July 8th.

The film depicts the completion of Canada's production of her first ounce of radium — the only radium being mined and refined in the Western Hemisphere today. Since the discovery of radium ore in the Canadian Arctic seven years ago, the world's second producing radium mine — the Eldorado on Great Bear Lake — has been opened, and the world's only complete radium refinery established — at Port Hope, Ontario, 3500 miles from the mine. The only other existing radium mine is in the Belgian Congo.

It took six years — and approximately 15,000 tons of radium ore — to produce this total of one ounce of radium at the Eldorado Refinery, which is today the world's greatest radium source. An ounce of the precious metal is valued at $850,000. Today production at the refinery is at the rate of 3½ grams — or one-eighth of an ounce — a month.

High spots of the refining processes, heretofore jealously guarded, are pictured for the first time. Mme. Curie's discovery for the isolation of radium — the evaporation process — is used as the final step in the complex treatment.

The first step in the process is to remove pitchblende. With the feeding of the ore into the crushers begins the painstaking task of extracting the radium and uranium compounds. Washing and a series of chemical treatments remove all the impurities and separate the compounds until finally the radium crystals are all that remain.

The metal is kept in tiny tubes, which are stored in a lead safe for protection against the penetrating gamma rays, awaiting shipment to hospitals and cancer clinics.

Notables shown attending the ceremonies in observance of this landmark include the rarely photographed discoverer of insulin, Sir Frederick Banting; Gilbert LaBine of the Eldorado, Canadian prospector who discovered the Canadian radium lode; and Ontario's Lieutenant-Governor, Dr. Herbert Bruce, celebrated surgeon.

The discovery and establishment of the Canadian mine was celebrated as an inestimable boon to hospitals and cancer victims throughout the world. Radium costs have been cut to one-third their former level since its inception — falling from $75,000 per gram to today's price of $25,000 per gram.

Correspondence

THE CONNECTICUT COLLEGE
OF PHARMACY

150 York Street - New Haven

August 4th, 1937

Dr. Stanley B. Weld, Editor-in-Chief
Journal of The Connecticut State Medical Society
258 Church Street
New Haven, Connecticut

Dear Dr. Weld:

I have just received the August 1937 issue of your journal and note that it is your first birthday and so it seems an appropriate time to write you a letter that I have been intending to write for some time complimenting you on your very excellent publication and thanking you for sending us copies for our library.

I hope that all of the members of your association appreciate the value of a journal such as yours. I am glad that you have decided to make it a monthly publication.

I wish you continued success in the future in your efforts to provide a journal that the State Medical Association can be proud of.

Very truly yours,

HENRY S. JOHNSON
Dean

- NEWS -
from County Associations

FAIRFIELD

The Board of Trustees of the Fairfield County Medical Association has planned a scientific program in cooperation with the local medical societies throughout the county. Dr. Milton C. Winternitz of Yale Medical School opened the program by addressing the Association at its semi-annual meeting on October 6. His subject "Pathology of Arteriosclerosis", will lay the foundation for other analagous subjects. The County Association officers feel that this plan of a continuing symposium at monthly intervals will be a great contribution to the members.

The program:

October 6 — Woodway Country Club, Springdale. (See above).

November 9 — Bridgeport. (Time and place not selected.)

"Coronary Diseases—Diagnosis and Therapy" by Dr. Louis H. Nahum.

December — Danbury. "Rheumatic Cardiovascular Conditions" by Dr. John R. Paul.

January — Greenwich. 'Subacute Bacterial Endocarditis" by Dr. George Blumer.

February — Norwalk. "Myocardial Failure" by Dr. H. M. Marvin.

March — Stamford. "Edema, Its Differentiation and Treatment" by Dr. Clarence L. Robbins.

April — Bridgeport. "Vascular Diseases of the Central Nervous System" by Dr. Harry Zimmerman.

April — (Place?). "Peripheral Vascular Disease — Its Conservative Treatment" by Dr. Ashley Oughterson.

The fall meeting of Fairfield County held at the Woodway Country Club on October 6 from all appearances was a great success. Previous attendance records were shattered with a count of 130 on this occasion. Dr. Winternitz added much to the meeting with his very scholarly presentation of some intensely interesting research work.

HARTFORD

A gift of $350,000 to St. Francis Hospital, Hartford, by Miss Catherine H. Dillon of Hartford has recently been announced. This gift provides for the erection of a new children's wing for the hospital and is given in memory of the late Charles Dillon and Edward H. Dillon, brothers of the donor. It is the largest gift in the history of this hospital.

Veterans Hospital to have new Building

Bids have been let for an addition to General Medical Building No. 2 at the United States Veterans Hospital in Newington by the Veterans Administration in Washington. Blueprints and specifications on the new 34-bed unit for which $85,000 was appropriated by Congress were re-

ceived through the Hartford Chamber of Commerce.

Dr. J. N. Bull Completes 59 years in Plainville

On June 30 Dr. J. N. Bull completed 59 years of active practice in Plainville. Dr. Bull went there in 1879 after graduating from the College of Physicians and Surgeons in New York the previous year. Dr. Bull was health officer of Plainville for more than 25 years.

Bristoll - Smith. Dr. Donald Andrews Bristoll, son of Mrs. Truman H. Bristoll of New Britain was married on September 11 to Miss Charlotte Emily Smith, daughter of Alfred Gilbert Smith of Greenwich. The ceremony was performed in St. Bede's Chapel, Rosemary Hall, and was followed by a reception at the home of the bride's father. The bride attended Rosemary Hall and was graduated in 1930 from Sarah Lawrence College, Bronxville, N. Y. Dr. Bristoll is an alumnus of Hamilton College and of the University of Pennsylvania Medical School.

LITCHFIELD

Homer C. Ashley, M.D., has been appointed health officer of the Town of New Hartford to fill the vacancy caused by the resignation of Theodore Ackerly, M.D.

The Semi-Annual Meeting of the Litchfield County Association was held at Harry Hanchett's camp on the shores of Bantam Lake on October 5. With the price of beef in the skies every mouthful of Dr. Harry's delicious steak was like a gold nugget. The Editor never tasted better. The absence of the State Society President, due to his father's illness, cast somewhat of a shadow on the gathering. Remarks were made by several guests from the other counties and from the State Society.

MIDDLESEX

Middletown Plans Full-Time Health Service

Under the leadership of progressive local citizens, the city of Middletown has secured a change in its charter providing for the formation of a full-time health department. In accordance with the act which passed the General Assembly during the recent session, Mayor Michael A. Brown has appointed as members of the new Board of Health — James Murphy, M.D., Edgar F. Fauver, M.D., Louis Loffredo, M.D., Mr. John F. Pickett, Rev. Herbert D. Rollason, Mr. Charles Schaefer and Mr. George A. Tierney. At the first meeting, Dr. Murphy was elected chairman of the Board.

M. L. Palmieri, M.D., M.P.H., has been appointed by the Middletown Board of Health as health officer of its newly organized full time health department. Dr. Palmieria received the degree of Master of Public Health in June from the Harvard School of Public Health. He began his work in Middletown August 1.

NEW HAVEN

Dr. Stanhope Bayne-Jones, dean and professor of bacteriology, Yale University School of Medicine, New Haven, has been elected a member of the medical advisory board of the Leonard Wood Memorial (American Leprosy Foundation).

Dr. Margaret Tyler, associate clinical professor of obstetrics and gynecology, Yale University School of Medicine, New Haven, received the honorary degree of doctor of science at the recent centennial celebration of Mount Holyoke College.

Dr. Ross G. Harrison, Sterling professor of biology, Yale University School of Medicine, New Haven, has been elected a foreign honorary member of the Royal Academy of Medicine of Belgium.

Colonel Brennand transferred to Inactive Research

After 20 years service, including active duty in the World War, and service since then with the United States Army Medical Corps Reserve, Col. Everett C. Brennand of New Haven has been transferred to the inactive reserve, according to headquarters of the 78th disivion, organized reserve. Col. Brennand is a physician attached to the medical service at the Veterans Hospital, Newington.

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COMING MEETINGS

American College of Physicians, April 4-8, 1938, Waldorf-Astoria Hotel, New York City. Dr. James H. Means, Boston, President; Dr. James Alexander Miller, New York City, General Chairman.

American Medical Association, June 13-17, 1938, San Francisco.

Graduate Fortnight of the New York Academy of Medicine, November 1-12, 1937, New York City.

Southern Medical Association, November 30-December 3, 1937, New Orleans.

• OBITUARIES •

DAVID MUNSON TRECARTIN, M.D.

1867 - 1935

Doctor David M. Trecartin was born in Middle Simonds, New Brunswick, Canada, on May 29, 1867. During his infancy he was brought to the United States by his parents and was reared in Boston, Massachusetts, where he acquired his public school education. During his early life he took up the study of civil engineering, but abandoned that profession to study medicine in 1890. In 1894 he received his M.D. degree at Dartmouth College in Hanover, New Hampshire. Following his graduation from medical school he spent six months at the Boston City Hospital and one year at the Massachusetts State Hospital in Tewksbury.

In 1896 he came to Bridgeport and established a general practice. He became keenly interested in surgery and later specialized in surgery and gynecology. In October of 1903 he was appointed Assistant Gynecologist at the Bridgeport Hospital, Bridgeport, and in 1906 was appointed Chief Gynecologist. In 1920 he was made Consulting Surgeon at the Bridgeport Hospital.

Doctor Trecartin was a member of the Bridgeport, Fairfield County, Connecticut State Medical and American Medical Associations and was a Fellow of the American College of Surgeons. He was surgeon of the local unit of the Naval Militia, and was a member of the Association of Military Surgeons of the United States. Following the World War he was in charge of the Veterans' Bureau. He was a member of the Bridgeport Yacht Club, the Brooklawn Country Club and the University Club.

In May of 1903 Doctor Trecartin married Miss Florence Pierce of Bridgeport, Connecticut.

Doctor Trecartin was taken ill about a year and a half prior to his death, but he continued practicing until about two weeks before his death. On May 27, 1935, he died at his home in Brooklawn Park of a cardiac condition with complications. At the time of his death he was sixty-five years of age. Doctor Trecartin is survived by his wife, one son and two daughters.

Stanton R. Smith, M.D.

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EMIL JOSEPH SUSSLIN, M.D.

1897 - 1935

Emil Joseph Susslin, born in Paterson, New Jersey, December 17, 1897, the son of Emil and Martha Anna Susslin, died July 9, 1935. He attended the New York University and the University of Vermont, where he graduated in Medicine in 1921, served his interneship at the Bridgeport Hospital in 1921 and 1922, and located in Bridgeport when his interneship was completed. He was married in 1926 to Helene Gould of Saint Albans, Vermont, who bore him a son, Alfred Gould Susslin, age seven. Doctor Susslin was a member of the Alpha Kappa Kappa fraternity, the Bridgeport Medical Society, the County, State and American Medical Associations and the American College of Physicians. He was a Master Mason and member of the Brooklawn Country Club. He died at the Bridgeport Hospital from subacute bacterial endocarditis.

Doctor Susslin occupied a very prominent place in Bridgeport, with a most brilliant future before him. He was a member of the Medical Staff of the Bridgeport Hospital, Treasurer of the local Medical Society, Chairman of the Economics Committee of the County Society, in which position he had done a great deal of very painstaking and important work. He was an internist of marked ability, with a special leaning to cardiology, and was one of the most thorough men I have ever known. He was a golfer of no mean ability and got a great kick out of the game, as he did out of all phases of life. He was one of the few men I know who would fight you to the bitter end for a principle and love you just as much when the battle was over. His patients loved and respected him; he was an ideal husband and father, and a staunch friend.

There are so many beautiful tributes which could be spoken of you, my boy, but you know

they are in the hearts of each one of us and our memories of you will be cherished through the years. May God rest your soul.

W. Lee Weadon, M.D.

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HOMER TOMLINSON PARTREE, M.D.

1865 - 1935

Homer Tomlinson Partree, one of six children of Robert C. and Sarah Jane Tomlinson Partree, was born December 1, 1865, in Woodbury, Connecticut. As a boy he attended the only school of higher education in Woodbury and vicinity, known as the Parker Academy, of which Henry C. Talmadge was the principal. From that time until his death Doctor Partree remained a student. Studying might well have been called his hobby, the reading of medicine of course, but equally was he interested in the Bible and history, both ancient and modern.

He graduated from Yale University with Bachelor of Arts degree in 1887. Then he studied pharmacy and passed the State pharmacists' examination and was employed for a while in a drug store in Waterbury.

He entered the Yale Medical School and graduated from it in 1892. Doctor Partree's internship was served in the Hartford Hospital. He practiced, in the first years, in Blandford, Massachusetts, where his three daughters were born. His wife was Minnie Amanda Havens of Wethersfield, who survives him.

For eleven years he practiced in Eatontown, New Jersey, where he acted as Health Officer and Medical Inspector for the schools. He was Secretary of the Eastern Monmouth Practitioners Society. In these pre-prohibition days in New Jersey, Doctor Partree was an ardent worker against the "local dominance of the wets." He was the author in 1909 of a treatise on "Contract Practice — Its Ethical Bearings and Relations to Lodge and Industrial Insurance." This was published in the Journal of the American Medical Association and attracted considerable attention.

In 1915, Doctor Partree moved back to his native State, Connecticut, practicing in Torrington until his death on December 9, 1935. His illness was short, just one week.

He was a member of the Litchfield County University Club, and of the Staff of the Charlotte Hungerford Memorial Hospital in Torrington.

Doctor Partree was beloved by his patients, for whose welfare he conscientiously labored, and whose kind words of appreciation to his bereaved family will be a lasting tribute to his memory.

Abram J. Barker, M.D.

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GEORGE HERMANN WRIGHT, M.D.

1868 - 1935

Doctor Wright was born in New York City on September 24, 1868, the son of George William Wright and Cornelia Elizabeth Schroeder.

He graduated from Trinity College in 1891, was a member of Phi Beta Kappa, and continued his studies there, obtaining a Master of Arts degree from the same institution of learning. He was a graduate of the College of Physicians and Surgeons of New York City and served his interneship in Bellevue Hospital.

He began the practice of medicine at Northampton, Massachusetts, then moved to Bridgewater, Connecticut, and finally opened his office in New Milford, Connecticut, in 1899, where he practiced for thirty-six years.

Doctor Wright was a faithful member of St. John's Episcopal Church of New Milford and served for many years as Senior Warden of that church. He was also associated with the local council of the Boy Scouts of America.

Because of an infection that made a nephrectomy necessary, he was never in rugged health in his later years of practice, but he remained active until a few weeks before his death, which occurred on December 11, 1935.

There is a part of the solemn oath of the Boy Scouts of America that says, "I promise on my honor, to help other people at all times," and this ideal of service he carried out to the end of his career.

We do not find it necessary to search the history of medicine to find heroes in the medical profession; they are here among us, and sometimes we do not recognize them until they are gone. This country doctor who persevered day after day, although handicapped by physical infirmities and poor health, forgetting himself

entirely when the welfare of his patients was concerned, is to us an example of the stuff of which heroes are made, and a challenge to us to carry on likewise.

The public's regard and esteem of our honorable profession is broadened and deepened, because of the lifelong service and devotion to duty by men like Doctor Wright.

Henry S. Turrill, M.D.

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LOUIS J. PONS, M.D.

1859 - 1936

Doctor Louis J. Pons died at his home in Milford, (Devon), April 18, 1936. He practiced his profession until the day before his death.

Doctor Pons was born in Eupen, Belgium, in 1859. He came to America early in life and received his preliminary education in Connecticut. He graduated from the University of Vermont School of Medicine in 1885. Following his graduation he did Post Graduate work at New York University. In 1886 he began the practice of medicine in Roxbury, Connecticut. During his residence there, he was Health Officer, Medical Examiner and a Representative of his community in the Connecticut Legislature. In 1886 he married Elizabeth J. Hodge, of Roxbury, Connecticut. He is survived by his daughter, Mrs. Adelaide J. Mathews.

In 1913 Doctor Pons moved to Milford, Connecticut, and immediately won the confidence and affection of the community by his sympathetic manner of conducting his professional affairs and his devotion to his work.

He was one of the founders and a director of the Milford Hospital, and was a member of its staff until a few weeks before his death, when he resigned on account of ill health. He gave his time and counsel freely and was a comfort to his patients with his cheery bedside manner.

Doctor Pons was a member of the Milford Medical Society, Fairfield County and Connecticut State Medical Societies.

By his death, he joined the great invisible caravan of the fast disappearing "old time family physicians."

Doctor Pons completed fifty years in the practice of medicine!

I know of no better tribute than to say with Saint Paul: "I have fought a good fight, I have finished my course, I have kept the faith!" Now that he has fought the good fight and that his labors in the vineyard of the Lord are ended, may he rest in peace.

W. J. H. Fischer, M.D,

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ARTHUR J. WOLFF, M.D.

1855 - 1936

Dr. Arthur Jacob Wolff, who died at his home in Hartford, Connecticut, on the morning of June 22, 1936, was born in London, England, on June 7, 1855, the son of Arthur S. Wolff, M.D., and Sarah (Ansell) Wolff.

His maternal ancestors lived in London and Ipswich, and were descended from a family dating back many centuries. Dr. Wolff's grandfather was consulting engineer in the French Army under Napoleon 1. His father served through the Crimean War in the French Service and was surgeon of the Fifty-fifth Regiment, New York Volunteers, during the Civil War.

Dr. Wolff was educated at the Plattsburgh High School and at fifteen years of age began the study of medicine with his father. This he continued for seven years when he moved with his father to Texas and entered the Texas Medical College and Hospital from which he graduated in 1878. For a year he practiced medicine in Galveston and then became Assistant Surgeon at the United States Army Post at Fort Brown. From 1877 to 1881 he saw service along the Rio Grande under General George Sykes and attended his General at the time of the latter's death. He came North in 1881 and took a special course at Belleview Medical College from which he received his M.D. In the same year he came to Hartford, where he entered practice, which he continued until forced by declining health to retire, only a short time before his death.

Dr. Wolff was a pioneer in bacteriology in Hartford and served the city in this capacity for thirty-two years. He was a proficient analytical chemist and toxicologist, on account of which he was frequently called upon to give expert testimony in forensic cases. His opinion was highly regarded by the State's Attorneys who sought his aid in the prosecution of some of Connecticut's most noted criminal cases. He was a witness in the celebrated Buchannan case in New York.

In 1886, Dr. Wolff married Harriet Krotoshiner who survives him, as also does a son.

Dr. Wolff's death was caused by Carcinoma of the Intestine.

Charles C. Beach, M.D.

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ROBERT J. BOYLE, M.D.
1885 - 1936

Robert J. Boyle, M.D., the son of James and Josephine Schneider Boyle, was born in East Haven, Connecticut, October 27, 1885.

His preliminary education at the public schools of New Haven was completed by graduation from the Boardman High School. He was graduated from Yale Medical School with the class of 1908. Following graduation he served as interne at St. Francis Hospital, Hartford, Connecticut. In 1909 he began the practice of medicine in Hartford and served on the surgical staff of St. Francis Hospital. In 1922 he transferred his home and office to Bristol, Connecticut, where he continued the practice of medicine, giving special attention to urological surgery, a branch of medicine for which he had an intense interest.

During his years of practice he followed post graduate study at the Brady Urological Institute and at the New York Hospital. He was associated with the Bristol Hospital, St. Francis Hospital and the New York Hospital. His society affiliations were The Connecticut State Medical Society, the Bristol Medical Society and the Hartford Medical Society.

Dr. Boyle was endowed with a brilliant and inventive mind and these talents were directed with unfailing energy to his medical and surgical work. He enjoyed a large practice among a group of loyal and grateful patients who knew him to be a skillful and honest physician.

Dr. Boyle's death took place on August 6, 1936 at St. Francis Hospital following an illness of only a few days. His death was due to lobar pneumonia. One month preceeding his last illness, the sudden and unexpected death of a beloved daughter Mary, a student in the Bristol High School, proved an unconsolable loss. Dr. Boyle is survived by his wife, Sarah Donahue Boyle, and two children, Claire and Terence Boyle. He is also survived by his mother, sister and four brothers.

Edward J. Whalen, M.D.

THOMAS GEORGE SLOAN, M.D.
1875 - 1936

Dr. Thomas G. Sloan died suddenly of a coronary embolus at his home on Park St., Manchester, Conn., Oct. 30, 1936.

Dr. Sloan was born in New Haven, Conn., October 12, 1875, the son of John T. and Elsie Watrous Sloan. He was educated in the public schools and entered the Yale Scientific School in the class of 1896. After two years he decided to study medicine and transferred to the College of Physicians and Surgeons of New York, from which he was graduated in 1899. During his interneship in the New Haven Hospital he became deeply interested in anesthesia. He opened an office on College St., New Haven, where he specialized in anesthesia and gave lectures on the subject at the Yale Medical School. In December 1903 Dr. Sloan came to Manchester and took over the practice of the late Dr. Mark S. Bradley. On March 9th, 1904 he married Miss Mabel Andrews of New Haven. He is survived by his wife, one daughter, a grandson and his sister, Miss Charlotte Sloan of New Haven.

During 34 years of successful general practice in Manchester Dr. Sloan always displayed the keenest interest in the welfare of the medical profession and of the town. In 1911 he helped to organize the Manchester Medical Association and was always active in its work. In 1920 he took an active part in the plans for the Manchester Memorial Hospital and in the organization of its attending staff. During his membership he served both organizations as secretary, as president, and on numerous committees, giving unstintingly of his time. He was a member of the Hartford County Medical Association, of the Connecticut Medical Society and of the American Medical Association. He was also a member of Manchester Lodge, A. F. & A. M.

Dr. Sloan had a remarkably genial disposition endearing him to a large circle of patients and friends. He was very devoted to his profession, rarely taking a vacation, often working far beyond his strength. He was quiet, home-loving, studious, widely-read, especially in history and biography. His retentive memory and quiet humor made him a delightful companion. He will be sorely missed, not only by his wife and family, but by a loyal circle of old patients and friends.

Noah A. Burr, M.D.

HENRY H. SMITH, M.D.

1855 - 1937

Doctor Henry H. Smith was born in Machias, Maine, January 9, 1855 and died of coronary thrombosis on February 23rd of this year at his residence (and office) 562 Whitney Avenue, New Haven. His only living direct descendants are his son, Philip Seabury Smith, now in South America, and his grandson, Caleb Henry O'Connor, at present of this city. He graduated from Bowdoin College and received his medical degree at the Jefferson Medical School in 1877. He began his practice in New Haven in 1897 in what is now Whitneyville in the town of Hamden. In the early part of this century he removed to New Haven on Elm Street, as my neighbor; thence to Wall Street, corner of Orange, and later removed to his Whitney Avenue home.

Additional interesting information: He was a Psi Upsilon at Bowdoin; superintendent of schools at Machias, Maine, for a number of years; a 33rd degree Mason; belonged to the Sons of the American Revolution. He was the great-great-grandson of Stephen Smith of Machias, Maine (then a part of Massachusetts), who served as Captain from 1775-1781, and was also a direct descendant of John Smith, who came from England in 1630 and settled in Barnstable, Mass.

Doctor Smith was typically one of the old-time modest, steady-going practitioners, faithful to his trust, always willing to learn that his patients might get the benefit of the latest improvement in the science and art of medicine, and for this purpose he attended the meetings of The New Haven Medical Association until a few weeks before his demise. Kindly in manner, this was reflected upon all those with whom he came in contact. It was a pleasure to have known and to have been associated with him and he certainly will be missed.

Max Mailhouse, M.D.

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CHARLES PURDY LINDSLEY, M.D.

1854 - 1937

After a long illness Doctor Charles Purdy Lindsley died at his home, 386 St. Ronan Street, New Haven, on March 29th, 1937. Brought up in a home rich in medical tradition, Doctor Lindsley was graduated from Yale Medical School in 1878 after receiving his bachelor's degree from Yale in the Class of 75 S. His father, Doctor Charles Augustus Lindsley, was an integral part of the Yale Medical School from 1860-1906 as Professor of Materia Medica; from 1860-



1883; Professor of Theory and Practice of Medicine, 1883-1897; Dean of the Faculty, 1863-1885; first Health Officer of New Haven, 1874-1886; Secretary of State Board of Health 1884 to the time of his death, and President of the Connecticut State Medical Society in 1891.

Starting in 1876, "Doctor Purdy" as he was affectionately known by his patients, practiced medicine in New Haven for a period of forty years. Before the advent of the automobile he was a familiar and distinguished figure as he went on his rounds meticulously attired and driving a very smart equipage. From 1883-1886 Doctor Lindsley was a demonstrator of Anatomy in Yale Medical School. He served a term as President of the Association of Yale Alumni in Medicine. He held the offices of Major and Surgeon in the Second Regiment and Medical Director and Lieutenant Colonel of Brigade in Connecticut National Guard.

In 1891 he married Mary Laura Dickerson Paterson, who died in 1908. His second marriage took place in 1919 to Caroline Elizabeth Ackerman. She died in 1931. Throughout his life he maintained a very active interest in his Yale class, St. Anthony and Delta Psi. His church — Saint Thomas Episcopal — was one of his closest interests and received the benefit of his experience as vestryman for many years, and at his death munificent bequests for a new church building and parish house, with endowment.

Howard S. Colwell, M.D.

• Abstracts •

CHARLES W. GOFF, M.D.

Scoliosis, A Functional Disturbance. E. Hauser, Arch. of Surg. 34,6. *June*, 1937.

After discussing the history of scoliosis through ancient civilization down to modern times, the author classifies the causes in the following manner:

1. Congenital types subdivided into the anomalous and posture in utero.

2. Acquired types under headings of: (a) Rickets, (b) Osteomalacia, (c) Flaccid paralysis (anterior polio), (d) Syringomyelia, (e) Spastic paralysis (hemiplegia), (f) Static deformities elsewhere in the body, (g) Torticollis, (h) Local disease of the spine (tuberculosis, etc.), (i) Contracture of the Chest, (j) sacro-iliac disease or sciatica, (k) Hysterical, (l) Adolescent type.

The latter, according to the author, may be caused by a number of concurrent affections such as an anomalous malformation of the fifth lumbar vertebra, unrecognized; debilitating diseases; rapidity of growth; carrying heavy books under one arm or studying in a cramped position. Any factor which leads to secondary functional insufficiency of the back structures will produce this type of scoliosis. 80% are right dorsal, left lumbar curves and come in for attention at about 13 years of age. No mention is made of sex predominence.

Progression is the rule if untreated, but spontaneous recovery may take place without apparent cause. The complications are listed as cardiac decompensation, decrease of vital capacity and altered psychology. Author's prognosis is variable depending largely on time of discovery of deformity. His treatment is especially interesting, consisting of the two usual approaches, re-establishment of normal function and correction of deformity. Passive and active exercises are mentioned, graduated to the needs of the patient. Such exercises should aim to strengthen all the muscles, given in the horizontal position, in the water or combined with the Sayre extension apparatus. Plaster corrective beds are not recommended. Forceful correction with maintainence in plaster is frequently applied. Derotation, by several means, can be of use. The great difficulty is to retain the correction. Scoliosis due to anterior poliomyelitis, the most difficult to correct and maintain, can be solved only by its prevention through muscle building, massage and support. He describes this phase as protection with exercise. Fusion may be of great benefit using either Hibb's or Albee technic or a combination. In adolescent scoliosis the method of Prof. Haglund is preferred by the author. This consists in utilizing the "body righting reflex". The pelvis is leveled and in the presence of a right dorsal curve, the trunk is made to list to the left, obliterating the compensatory left lumbar curve. A kyphosis in the dorsal region is taken care of flexing the trunk, obliterating the hyperlordosis in the lumbar region. Derotation is obtained by fixing the pelvis and rotating the shoulder girdle in the opposite direction, with the arms acting as levers. In this position the pelvis is fixed in plaster, enclosing the lumbar area and extending up to the dorsal curve. Correction will follow. The body will assume the upright position due to the "body righting reflex" and the result will be a correction above the cast in region of the dorsal or primary curve. The cast also acts as support and relieves the functional decompensation. At the same time it permits normal use of the body structures. The patient pulls out of the cast and proceeds about her normal activities. After correction has been attained author states it can be maintained during muscular rebuilding through use of a brace or corset. In severe deformities good correction can not be obtained. A fusion may, on occasion, be used to consolidate the gain in correction more rapidly than through exercises. He mentions turnbuckle jackets for correction, followed by fusion but adds that a bone graft will not maintain correction unless muscular structures are also balanced by exercises.

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The Dangers of Reducing Fractures Under the Roentgenoscope and Methods of Protection Against Them. C. A. Stevenson & E. T. Leddy. The Amer. Jour. Roent. and Radium Therapy. 37,1, *Jan.* 1937.

This is a careful study with sufficient experimental work to draw rather useful conclusions. Because of the advantages offered the surgeon through the use of the roentgenoscope, there will no doubt be a more wide spread application with concomitant haxards. These authors state carefully the measures necessary for a fruitful working procedure. In discussing the advantages to the surgeon in reontgenoscopic reduction of fractures, they list them as follows:

1. The number of open reductions is lessened.

2. The number of anesthetics administered is distinctly fewer.

3. Economic advantages in requiring, as a rule, one reduction procedure; shorter convalescence; faster turn over for a busy hospital.

4. The number of roentgen-ray examinations is materially lessened.

5. Emergency cases are more easily handled.

Roentgen dermatitis is rarely found among roentgenologists but frequently is among general practitioners and industrial surgeons following prolonged use of hands reducing fractures or searching for foreign bodies. To establish a reliable arrangement on which reasonable dependability could be placed so that the dermatitis hazard would be reduced if not eliminated, the authors measured the "erythema" does under controlled situations. They used a new "Victoreen" meter and calibrated their procedures. A standard technic was used consisting of K. V., 6 M. A. of tube current, 16 inch tube — table distance, and a table top of ¼ inch pine veneer. The dose was determined that the operators fingers received as well as the dose received by index finger and thumb, separately, inasmuch as they are generally on opposite surfaces of the limb under manipulation. The effect of secondary radiation and of the table top were measured. An ideal technic was determined upon after varying all factors experimentally. Their conclusions were particularly interesting. Emphasis was placed upon this procedure, reducing fractures under the roentgenoscope, as a most

hazardous affair. One exposure might lead to an over dose unless great care is used. Several exposures might produce an accumulative reaction with injury delayed. The patient may also receive an overdose at the same time. This is masked by plaster splints or casts or by the pain and swelling about fracture site. They emphasize the importance of speed of examination, short activation of tube, keeping the fingers outside the central beam of rays and of using the protection afforded by the extremity under manipulation. The hands of the operator are better kept out of the field during activation of the tube or lead-rubber gloves should be used. Each operator might readily keep a record of his exposure and calculate his maximum dose for reference. The use of a mechanical reducing apparatus such as the Hawley-Scanlon table is recommended to cut down the manipulation time exposure. The technic recommended consisted of 55 K. V., 3 M. A. of tube current, 2 M M of aluminum as filter, 16 inches tube — target-table-top distance and a table of ¼ inch pine veneer.

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Orell, Svante, Osteoplastic Cuneiform Osteotomy in the Treatment of Ankyloais, Jour. Bone and Joint Surgery, XIV, 3, *July*, 1932.

Ibed, Studien uber Knochenimplantation und Knochenneubildung, Implantation von "Os Purum" Sowie Transplantation von "Os Novum". Acta Chirurgica Scandinavica, L X XIV, Supplementum X X XI, Goteborg, 1934.

Ibed, Interposition of Os Purum in Osteosynthesis after Osteotomy, Resections of Bones and Joints, (Interposition-Osteosynthesis) Surg. Gyn. & Obs., LI X, Oct. 1934.

Ibed, Ospurum. Aktiengelesellshaft Pharmacia, Stockholm, Sweden.

Ibed, Transplantation of "Os Novum". (osteosynthesis in Tuberculosis Spondycitis) Extrait du Livre Jubilaire du Doctor Lambotte, Stockholm, Sweden.

Ibed, Implantations av os purum. Sartryck Nordisk Medicinsk Tidskrift, Bd. 12, 1936.

Ibed, Bentransplantation, Separat ur Tidskrift for Sveriges, Sjukskoterskor, hafte 19, 1936.

Ibed, Knockentransplantation. Octa Societatis Medicorum Svecanae. Stockholm, 1936.

Ibed, Ospurum. Abstract. Aktiebolaget Pharmacia, Stockholm, Sweden, 1937.

Ibed, La transplantation osseuse. Journ. de Chirurgie, 49, 6, *Juin.* 1937.

The author first reported two cases in which a cuneiform osteotomy was done to correct a deformity following bony ankylosis of a joint, one a knee and the other a hip. In each case the wedge was accurately measured on the roentgenographic plates so that it could be removed, rotated 180 degrees and replaced to prevent shortening. After four hundred and sixty-five days each case showed excellent endosteal reaction and bony union. Absorption was noted of the graft which eventually disappeared.

Twelve months after each operation no signs appeared of collapse of wedge of bone. Since both bone wedges must be considered dead by the author, the new bone formation must have taken place from the cells of the surrounding living tissues. Histological examination in later writings proves the accuracy of the author's statements. The obvious signs of necrosis and resorption of bone substance did not give rise to instability at the site of union.

The author had investigated subperiosteal implantations of small bone fragments and found that they behaved in practically the same way that small fresh fragments did in a similar place. It suggested further work, using bone purified from fat, connective tissue and albuminous substances, which would readily be available in case of implantation.

The author called this purified bone substance "os purum." This led to an extensive study and subsequent report.

A method of approach to the problem was determined, using cases of implantation of autoplastic, homoplastic, and heteroplastic bone. After varying periods sections of the grafted areas were taken and studied histologically. Bone was implanted subcutaneously, also into the medulary space of the tibia, as well as subperiosteally. Cases of articular tuberculosis were resected and "os purum" implanted. Roentgen studies were used to control each case. Four cases of bone resection of the hand and foot were implanted and carefully followed. Cases of congenital absence of bone structures were bridged with "os purum." Spinal implantation per Albee presented a series of cases for study. It was at this time that the author used "os novum" in conjunction with "os purum". The "os novum" was obtained by implanting a slender strip of os purum beneath the periosteum for four to six weeks and then removing it plus the granulation tissue and new osteogenic tissue thus formed in toto. The combined method was then studied in cases of pseudoarthrosis to augment healing of bone. In conclusion he asserted that "os novum" had proven successful in his cases of spinal fusion, using the Albee technique, and also in cases of pseudoarthrosis. The characteristic features of healing, when boiled autoplastic bone or "os purum" were used consisted of the following:

(1) Primary healing. (2) Ability to support the mechanical strain without collapsing. (3) That the regeneration of bone in the epiphyseal transplants was endosteal. Regeneration took place withing the graft, whereas in the disphyseal transplants regeneration of the bone was mainly periosteal. Furthermore, since centrally located, minor necroses remain for some time in the higher and bulkier parts of wedge shaped grafts, it should be advantageous to use graft material free from connective tissue, albuminous substances and fat, that is, "os purum." In this way the canal system of the bone is more easily accessible to the living cells which grow into them from the surrounding tissues.

Two brochures were made available by the Aktrebolaget Pharmacia, in several languages, explaining the preparation of "os purum," the use of "os novum" and quoting cases at considerable length. The illustrations are excellent and a great deal of material has been well condensed. A comparative table is presented showing the organic and inorganic values in os purum. The table showing relative strengths both in knocking and bending indicates a relatively high efficiency. In 1936, the author published a report on many cases of tuberculous osteitis in which some form of os purum was implanted, either to fill a cavity, following excision of a tuberculous lesion or to

hasten anklysosis after excision of a tuberculous joint. Uniformly good results were shown irrespective of the bone or joint involved.

Special interest was shown in a case of osteogenic sarcoma of the upper end of humerus in which the sarcomatous substance was completely excised from the soft parts and shaft. The shaft was then boiled in physiological salt solution for ten or fifteen minutes and replaced. Primary healing took place. Eight months later a spontaneous fracture occured at upper center of the shaft. At that time no recurrence of the sarcome was apparent in the humerus or about shoulder joint but there were metastatic extensions to the right lung. From the author's last publication the method of preparing os purum is obtainable. This consists of the following steps. The material (coming from the slaughter house or amputations from the operating theater) is first cleaned of soft tissues by a mechanical treatment. Then the ends of the bones are cut off with a saw. The albuminous substances (albumin of blood and other sources) are extracted in a prolonged bath of saline solution. The connective tissue and bone marrow from the bone canals are dissolved by immersion in a bath of hot potash for an extended period and the fat is removed by soaking in acetone. Between each process the bone is carefully rinsed and cleaned with saline. This process takes twenty to thirty days for completion, chiefly consumed in lengthy soaking.

The finished product is cut into all standard shapes for onlay grafting including pins, screws, and wedges. Both spongious and cortical bone is available in cut blocks for interpositional grafts. The principle of os purum has a great deal in common with the method of massive onlay grafting used so effectively by Phemister. In Orell's method however, the material is always available, can be shaped with great accuracy to fit and affords a definite refinement, easily acquired by the surgeon.

• Quarto Notes •

PEDIATRIC DIETETICS

N. Thomas Saxyl, M.D., F.A.C.P., F.A.A.P.
Associate and Lecturer in Diseases of Children
New York Post-Graduate Medical School,
Columbia University
Foreword by Adolph G. DeSanctis, M.D., F.A.A.P.
Director of Pediatrics at the New York
Post-Graduate Medical School and Hospital
Columbia University

Pp. 565 — $7.00

Philadelphia Lea and Febiger 1937

The aims of this volume are well stated by the author in the first paragraph of his preface. "Too little emphasis has been placed upon diet therapy for the sick child, and few attempts, if any, have been made to assemble and correlate available data on the subject in one volume. Having practised pediatrics for many years, the author has realized the inadequate information at hand relative to this aspect of dietetics and believes that such a book would be useful to physicians in general as well as pediatricians". The newer knowledge of nutrition which has been found to be of practical value has been incorporated in this volume.

The book is divided into three main parts and an appendix. The first part considers in a rather concise manner digestion and the forms and types of foods, including their composition and their usefulness in the diet of the infant and child. A summary of our knowledge of vitamins and minerals is given.

The second part takes up infant feeding, both maternal nursing and artificial feeding, including proprietary and other foods for infants. The third portion discusses the dietetic management of various diseases of infancy and childhood and the application of dietetics to Dentistry.

The appendix includes height and weight tables, physiologic data, general recipes, practical suggestions, classified food tables, mineral constituents of various foods, iodine content of various foods, food sources of vitamins, potency of different cod liver oils and their substitutes including viosterol. Bibliographies follow. There is a good table of contents, and author and subject index.

The subject matter is presented in an interesting form. The volume is arranged very conveniently and practically. It should be helpful as a guide and handy reference for use in planning or checking up the diets of infants and children, whether it be those in health, those with feeding or nutritional problems, or those who are afflicted with disease.

C. V. Calvin

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FUNDAMENTALS OF ELECTROCARDIOGRAPHIC INTERPRETATION

J. Bailey Carter, M.D.
Clinical Instructor, Department of Medicine
Rush Medical College
With Foreword by
Horatio Burt Williams, M.D.
Dalton Professor of Physiology
College of Physicians and Surgeons
Columbia University

$4.50

Springfield, Illinois Charles C. Thomas 1937

The number of physicians who desire to gain some understanding of the electrocardiogram is increasing. Not only have the relatively cheap instruments and the simplicity of their operation contributed to this growing demand, but also the recognition that the information to be derived from this source contributes to the skill and acuteness of the physician dealing with heart disease. There is therefore a need for some compendium that lists the varying types of disorders found in the electrocardiogram as well as the various types of electrocardiograms which may be found in the different diseases of the heart.

In the Fundamentals of Electrocardiographic Interpretation, Dr. Carter has successfully attempted this two fold task. The opinions expressed and the interpretations

represent both the result of the author's personal experience and the opinions of many workers in the field.

The author must have felt that his public preferred to skip over the "dry" physiology underlying electrocardiography because very little space is given to physiology and no distinction is made between hypothesis and fact. The nature of the action current of the heart as seen in the electrocardiogram is presented from the older viewpoint and is considered somewhat of an artefact, resulting from the summation of two monophasic curves oppositely directed and differently spaced in time. This has never been more than a hypothesis and much recent evidence has accumulated to show that entirely different factors are probably responsible for the various phases of the electrocardiogram. The clear differentiation of the action current into two distinct phases, the "spike" and the "after-potential", largely through the investigations of Gasser and his co-workers, has greatly simplified the interpretation of the phases of the ventricular electrocardiogram. It can now be stated that the QRS deflection and the T wave represent these two fundamental phases of the action current. The QRS becomes the summated spike potentials of the individual action currents and represents the depolarization and repolarization associated with excitation, while the ST wave is made up of summated after-potentials, which reflect the metabolic state of the tissue. In the light of this present concept, the phrases from the older physiology such as "Electrical systole"; "Invasion, possession and retreat"; "The QRS is the wave of ventricular systole"; "Electrical precedes mechanical"; "QRS is depolarization", are inaccurate, have only historical interest and might well have been discarded. On the other hand, many questions which the general man might pose receive clear and concise answers. How does digitalis affect the electrocardiogram? What are the electrocardiographic findings in hypertension, coronarys clerosis, myxedema, obesity, pregnancy, pneumonia, etc.? What do abnormalities of the P wave, QRS and T wave look like? These are all well answered. Case histories and accompanying electrocardiograms are published in an attempt to show the value of the evidence obtained from the electrocardiogram in clinical diagnosis. Finally, at the end of the book, nine pages are given over to a glossary which is clear, concise and highly useful and almost eighty-five pages are devoted to a bibliography of subjects taken from the Index Medicus and covering the years 1916-1935. Unfortunately the references to the recent work on the physiology of action currents have not been included.

The volume presents many more plates than most books on this subject hitherto published, but some are reduced to the point that it is difficult to analyze them minutely, while altogether too many were chosen with very poor photography. For this reason it is often difficult to recognize convexity and other significant changes in the ST segment. A considerable improvement in the value of many of the plates could have been further obtained if each record were accompanied by a legend giving a complete and orderly analysis of the curve. In the absence of such minute analyses, we find diagnoses such as "myocardial damage", "coronary occulsion", etc., with no specific description from wihch the conclusion was drawn.

It is thus a book in which the practitioner may become acquainted with some of the electrocardiographic fingings in diseases affecting the heart, but it can hardly be considered to present adequately the fundamentals of electrocardiography.

L. H. Nahum

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SURGICAL ANATOMY

Grant Massie, M.B., M.S., F.R.C.S.
Assistant Surgeon, Guy's Hospital, England
Third Edition, enlarged and revised
Pp. 478 — $6.50
Lea and Febiger Philadelphia 1937

In his third edition of "Surgical Anatomy", Massie has again made a very nice liason between anatomy and its surgical ramifications. The clear, concise description of pertinent anatomical details with their surgical significance is a pleasure to read. Frequently the anatomical discussion of any region is completed by a brief resume of the common surgical precedures involving that area. The neck, with its description of surface anatomy in relation to underlying structures and their surgical approach, is a good example of how thoroughly the author has covered this subject.

The book is not large and yet exceedingly comprehensive in scope. The style is clear and flowing, the illustrations are adequate, and the print is good.

S. S. Quarrier

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MEDICAL UROLOGY

Irvin S. Koll, B.S., M.D., F.A.C.S.
Attending Urologist, Michael Reese Hospital
Pp. 431 — $5.00
C. V. Mosby Co. St. Louis 1937

This is a compact, concisely written volume with excellent illustrations. It is primarily intended for the student and general practitioner, and should be a boon to the latter, because scrupulous attention is paid to the technique of the simpler urologic instrumentations, which the practitioner is so often called upon to do in his office. The sections on gonorrhea and its treatment are adequate, as are the sections devoted to the complications. The chapter on strictures leaves little to be desired, and to this chapter the specialist might well refer with profit.

Venereal lesions other than those caused by gonorrhea are discussed in great detail. No mention, however, is made of testicular tumors, so many of which are first seen by the general practitioner. The author undoubtedly considers these the concern of the surgical urologist.

The final section of the book contains a tabulated section on differential diagnosis, which should be of help to the student preparing for an examination. At the end of each chapter, there is a most complete bibliography, attesting to the author's painstaking care, in writing this book.

Charles Mirabile

WHY WE DO IT

Edward C. Mason, M.D., Ph.D., F.A.C.P.
Professor of Physiology
University of Oklahoma School of Medicine
Pp. 177 — $1.50
C. V. Mosby Co. St. Louis 1937

The author makes a well intentioned attempt to impart useful information of a psychiatric nature to parents and teachers. The book is divided into fifteen chapters and discusses the following: a psychologist's view of psychology, ego development, the personality triangle, brain mechanisms affecting personality, endocrine and nervous system mechanisms affecting personality, the psychology of the religious fanatic, sex development, factors causing discord between the sexes, social development, education and environment, abnormal perception and so on.

The book reads easily but the information is of a general nature and is essentially of little value to the average layman. It describes mechanisms which are beyond the comprehension of those for whom the book was written.

Although this book was intended for parents and teachers, it should be of more value to psychiatric nurses and psychiatric social workers.

L. H. Gold

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A MEDICAL FORMULARY

E. Quin Thornton, M.D.
Emeritus Professor of Therapeutics
in the Jefferson Medical College, Philadelphia
Pp. 363 — $2.75
Lea & Febiger Philadelphia 1937

The 14th edition of Dr. Thornton's popular and valuable handbook of therapeutics has been extensively revised and re-written with especial emphasis on conformation to the revisions of the United States Pharmacopoeia, which became official on July 1, 1936. It is to be recommended as an excellent handbook of therapy, and, in addition, its pharmacological perfection should be an inspiration to the sadly decadent art of prescription writing which exists today. Also, it is to be commended for its policy of condemning the use of proprietary preparations.

D. R. Hazen

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PERSONAL HYGIENE

C. E. Turner, M.A., DR.P.H.
Professor of Biology and Public Health
Massachusetts Institute of Technology
P. 335 with 84 Illustrations and 3 Color Plates
St. Louis C. V. Mosby Co. 1937

This work is based on part one of the author's "Personal and Community Health," with revision, adaptation, and numerous additions. Fortunate is the college undergraduate in whose classes this is used as a text or collateral reading. With a wide experience and long service in the field of public health, Professor Turner has compiled an eminently readable book, the keynote of which is, "Your health depends, not on what you know, but upon what you do", and he sounds a warning that "ambition may be worthy of a sacrifice of health, but certainly sacrificing health does not in itself accomplish the ambition."

Nutrition, digestion, oral and dental hygiene, the respiratory, circulatory, excretory, reproductive and special sense organs, the endocrine and central nervous systems and bodily mechanics, are well discussed together with their more common organic and functional disturbances. The usual communicable diseases and the principles of immunity are summarized. Each chapter is followed by a bibliography, and a glossary preceding the index facilitates and encourages further reading.

An attempt is made to foster a cooperative attitude on the part of the public toward the physician, who "should be given an opportunity to advise during health," and it is regretted that, "many persons treat themselves until they become seriously ill." Without doubt Professor Turner has succeeded in writing a book which makes the acquisition of "The standard of health knowledge appropriate for the educated man and woman," more interesting, adequate, and practicable.

Donald Beckwith

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PHYSICAL DIAGNOSIS

Don C. Sutton, M.S., M.D.
Associate Professor of Medicine
Northwestern University School of Medicine
Pp. 495 with 298 Illustrations and 8 Color Plates
St. Louis C. V. Mosby Co. 1937

This book can be well recommended, particularly as a text for students. The material is well organized with plentiful use of heavy type section and paragraph headings with interspersed italics, which, together with the excellent index, make for easy reading and ready reference.

Besides stressing the necessity of knowing the normal, generalizing the disease, individualizing the patient and ascertaining all available data before reaching a diagnosis, the introduction includes an interesting historical sketch of the development of percussion and auscultation from Leopold Auenbrugger to Sir Thomas Lewis. Presenting symptoms, signs, and characteristics of disease are discussed differentially, but of necessity rather briefly.

The sections on the heart and lungs are good both from the point of view of teaching and of clinical interpretation, and include illustrative electrocardiographic tracings, sagittal, and cross sections of the body at various planes, and numerous x-rays of the more common findings. The illustrations on the whole are well chosen and instructive. The color plates deal largely with haemodynamics in valvular heart diseases.

Findings in the various pathological conditions of the abdominal organs are discussed in reasonable detail, and the types of nephritis, cirrhosis and, splenomegalies are highlighted.

The section on neurologic examination is hardly adequate for student or practitioner, but on the whole, the book should be well received and find ready acceptance in its field.

Donald Beckwith

OBSTETRIC AND GYNECOLOGIC NURSING

Frederick H. Falls, M.S., M.D., F.A.C.S.
Professor of Obstetrics and Gynecology
University of Illinois College of Medicine
and Jane R. McLaughlin, R.N., B.A.
Supervisor of Department
of Obstetrics and Gynecology,
Research and Educational Hospital,
University of Illinois, College of Medicine

P. 492 — $3.00
St. Louis C. V. Mosby Co. 1937

One feels after reading this new book on obstetrical and gynecological nursing that its usefulness should not be limited to teachers and students of these closely allied subjects but could well be used as a reference book by graduate private duty and public health nurses. The essentials of each subject are clearly and briefly stated and unnecessary duplication of subject matter such as anatomy and physiology has been avoided. The illustrations, which are simple, clear drawings, add to its value as a reference text.

In the first 280 pages given to obstetrics, a brief review of anatomy and physiology is followed by chapters on the management of pregnancy, the pathological conditions of pregnancy and the diseases which complicate pregnancy. The management of normal and abnormal labor and delivery is discussed.

In the chapter dealing with operative obstetrics, various operations and instruments are described and illustrated. The details of preparation and draping are presented so that the nurse may intelligently assist the doctor.

Many nursing procedures are outlined in the division describing the care during the puerperium and the management of the new born. The remainder of this section includes chapters on pre-natal and post-natal care and outlines the preparation for a delivery in the home.

The second part of the book is devoted to gynecology and includes fifteen chapters covering the subject concisely. The authors discuss gynecologic diagnoses, birth injuries, uterine displacements, diseases of the vulva, uterine and ovarian tumors and malformations. There is a chapter on operative gynecological procedures in which the principles of the operation are presented and a brief summary of the pathological anatomy given so that the nurse may understand and execute her nursing duties in an efficient manner.

The chapters on nursing procedures for catheterizations, bladder irrigations and vaginal irrigations are well written. For those nursing schools where the routine of nursing care is the same as outlined in these procedures, the book would serve admirably as a nursing manual. For general use, however, these nursing technics seem more suitable for comparative study. This book would be a valuable addition to a nursing school library.

L. E. Wilcox, R.N.

SYNOPSIS OF GYNECOLOGY

Harry S. Crossen, M.D., F.A.C.S.
Professor Emeritus of Clinical Gynecology
Washington School of Medicine
and Robert J. Crossen, M.D.
Assistant Professor of Clinical Gynecology
Washington University School of Medicine

Pp. 247 with 106 Illustrations
St. Louis The C. V. Mosby Co. 1937

As an introduction to gynecology this book may well be an aid to the medical undergraduate, to whom it is addressed. It seems to follow the outline of a lecture course, and frequently when one would desire slightly more detailed discussion, there is reference to the parent text. There is a considerable amount of repetition and overlapping, thus helping impression on the student, but not contributing particularly to usefulness as a desk reference for the practitioner. In discussions of therapy, there is a tendency toward generalization, reaching a high point in discussing systemic effects of internal medication; i.e., "These various effects are secured as required in different cases by the use of tonics, laxatives, sedatives, hemostatics, uterine astringents, endocrine preparations, antitoxins, and foreign proteins in small or large doses."

The opening chapters deal very satisfactorily with the anatomy and physiology of the generative organs, methods of examination and general methods of treatment. The chapter of diseases of the ovaries is particularly good, as is that on preoperative preparation and post-operative complications. The illustrations are well chosen, on the whole, and are quite explicit.

Donald M. Beckwith

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TO DRINK OR NOT TO DRINK

Charles H. Durfee, Ph.D.
Foreword by Arthur H. Ruggles, M.D.
Providence, R. I.

Pp. 212 — $2.00
New York Longmans, Green & Co. 1937

This is a unique account of how one man with insight and vision has accomplished the successful treatment of the "problem drinker". Alcoholism is presented to the reader in a new light as the result of a psychological sickness. Its cure is described on the basis of mental liberation. The happiness attained by the author's patients on the farm where those already established make the latest arrival feel at home is a far cry from the atmosphere engendered under the older methods of physical restraint. In fact, one is compelled to lay down this book when completed with a new picture of the alcoholic and a new understanding of his problems.

The closing chapters of this book present suggested preventive measures for the individual and for society as a whole. The author reminds us that the problem of alcoholism resolves itself into a problem of total mental health. "Any program which promotes sound emotional attitudes in the individual and the community will do more to get at the roots of the trouble than an attack on the alcohol itself."

S. B. Weld

THE LABORATORY DIAGNOSIS OF SYPHILIS

Harry Eagle, M.D.
Past Assistant Surgeon, U. S. Public Health Service,
Lecturer in Medicine,
Johns Hopkins University, Medical School
with foreword by
J. Earle Moore, M.D.
Associate in Medicine, Johns Hopkins University
Physician in Charge,
Syphilis Division of Medical Clinic

Pp. 440 — $5.00
St. Louis C. V. Mosby Co. 1937

The author has written a very comprehensive and detailed book on the various technics regarding the Wasserman and flocculation tests together with their modifications. He has gone into the many problems that confront the physician and technician in a well written and practical manner adding many of his personal thoughts as regards the question of syphilis.

Dr. Eagle has divided his text into an introduction and six parts. The introduction begins with the discovery of Bordet in 1898 of the complement fixation hypothesis with a very concise understandable resume of this phenomena together with its early application in the diagnosis of syphilis.

Part One describes in great detail the various constituents which take part in the Wasserman technic together with their methods of preparation and standardization. The many factors influencing the results of this test are discussed at length with their practical considerations and interpretation. An outline of three Wasserman technics completes this part.

In Part Two the mechanism of the various flocculation tests are elaborately discussed together with a description of the physical and physiological characteristics of their constituents. The author brings out very scholarly the intimate relationship between the flocculation and Wasserman essentials. Dr. Eagle claims that all flocculation tests are fundamentally the same regardless of their name and the reaction is due to the aggregation of lipoids by a specific substance in the blood serum which he calls Reagin. Chapter twelve gives an outline of seven representative flocculation tests.

Part Three then takes up the spinal fluid cytology in neuro-syphilis describing the changes in cell count, spinal fluid protein and appearance of reagin. Dr. Eagle states that reagin is the most specific and important for the diagnosis of syphilis while the other two factors may occur in any meningeal irritation.

The varilus colloidal tests are technically described together with their clinical importance and an explanation of the three curves generally observed. An important statement is made by the author that any type of cerebrospinal lues may produce any one of the three curves and the type of curve depends on the relative proportion of globulin to albumin. An excess of globulin will give a first zone or paretic curve, an excess of albumin over globulin a middle zone or tabetic curve while an equal amount of both will give a third zone or meningeal curve.

Tests for lues other than the Wasserman and flocculation are also discussed briefly and altho a considerable amount of progress has been made along various lines the reuslts as yet are not adequate to be used routinely.

Part Five gives a valuable evaluation of serological reports and the significance of positive and false positive reaction. Dr. Eagle's methodical enumeration of their causes gives the physician a fuller understanding of their clinical meaning should he encounter such cases in his practice. The author also agrees with many syphilographers that the cord blood Wasserman is not a reliable test and is really more specific for the mother than her offspring.

The last part gives a statistical comparison of serologic technics and the method of choice together with an outline of the daily routine in a large laboratory for Wasserman tests.

As syphilis is today considered by most physicians as the greatest public health problem, this book should be subscribed to by every physician as a timely asset in his practice.

B. L. Salvin

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SENILE CATARACT

W. A. Fisher, M.D.

Third Edition Pp. 150 181 Illustrations
Chicago H. G. Adair Printing Co. 1937

In this manual Fisher has collected chapters written by Profs. Fuchs, Barraquer and Drs. Holland, Wright and Van Lint. It is an extremely interesting book and well worth the time of any Oculist who does cataract work to spend reading it.

Anything that Prof. Fuchs wrote was always excellent and his chapter is no exception. His advice as to time to operate is exceedingly pertinent, especially in this day of Intra Capsular Extraction when many surgeons arepr one to rush ahead long before it is actually indicated. It is very interesting that he allows his patients to walk back to the wards following operation and that he never saw any damage arise from this procedure. No irrigation was used in Fuchs Clinic. His patient sits out of bed the following day, no mention is made of cutures, no atropine is used, unless indicated, and incarcerated iris is excised as soon as discovered.

The chapter by Barraquer is also well worth while and possibly if used more in this country we would feel more kindly toward his method. The probability is that most Oculists dislike Barraquer's method because they have never acquired the proper technic and undoubtedly, in his hands, the results are at least equally as good as other results following other methods. Barraquer has evidently spent considerable time in the physics, anatomy, physiology and mechanics involved in Facoerisis and the Erisfaco. He concludes that the majority of operative accidents and post-operative complications depend on a faulty technic or want of foresight and are usually avoidable.

Dr. Holland's chapter is a resume of Col. Smith's methods. He also is a definite advocate of Intra Capsular Extraction and blames vitreous loss in most cases to inexperienced operators.

Dr. J. W. Wright's experience in intra capsular work dating back to three accidental intra capsular extraction

about 1873, is very interesting, using digital above, and occasionally only, below as well. In his early days Dr. Wright had no anesthetic at all and apparently had equally good results.

Dr. Fisher has written a chapter summarizing Dr. Arnold Knapp's method of Intra Capsular tumbling and we are all well acquainted with Dr. Knapp's published analytical study of hundreds of results which are excellent honest and most praiseworthy.

Dr. Elsching's method is briefly summarized as is Dr. Homer Smith's, Discission and later Extraction.

Dr. Fisher has written a very detailed chapter on preparation, antiseptics and extraction on a "Modified Smith" method. Another chapter has been devoted to operating on kitten's eyes in order to procure efficiency.

Dr. Van Lint writes a very interesting chapter in which he advocates extra capsular before the sixtieth year and intra capsular after. He also uses a keratome incision with enlargements on either lid with scissors, making a temporal incision and Barraquer suction for extraction.

Dr. Fisher describes a new suction method with a new motor, in another chapter, employing the Hildreth Lamp. The latter is extremely worth while.

The final chapter by Nugent in the fitting of correcting lenses after cataract extraction which, while being very pertinent, is still inferior to Obrig's recent book on lenses.

Summarizing, the book is well worth reading and studying the various methods used by some of our leading operators who have had a wide experience in preparation, operation, and post-operative care and we can perhaps profit considerably by comparing these various methods.

M. F. Little

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A TEXTBOOK OF SURGICAL DRESSING

Henry S. Brookes, Jr., M.D.
Instructor in Clinical Surgery
Washington University School of Medicine

Pp. 636 233 Illustrations $3.50
St. Louis C. V. Mosby Co. 1937

This is a very comprehensible text written in 31 chapters by Dr. Henry S. Brookes, Jr. The detailed routines in equipment, procedures and nursing care are largely based on those carried out in the Barnes Hospital, St. Louis.

The introduction immediately establishes in the mind of the reader the author's recognition of the responsibility of the nurse in an effort to make flexible all routines as taught in the medical world and the tremendous role she assumes in the life of a hospital. It would seem to be the intent of the author to instruct the reader how to interpret routines intelligently and how to carry them out efficiently in the best interests of the patients. The mutual satisfaction of nurse and physician who are so vitally interested in the welfare of the patient is given consideration.

The first eight chapters present a well defined and general concept of the types, treatments, and complications of infections, burns, ulcers, tumors, and surgical dressings. Chapter 9 is a highly practical and informative one on First Aid and is universal in its application to the community at large.

Chapters 10-14 deal with the routine pre- and post-operative care of patients and the complications of such cases. The types of anesthesia used in modern surgery are clearly presented as is also the subject of sterilization. Asepsis, technique in handling equipment and the duties of the operating room nursing are discussed at length. The instrument "set-up", sutures and drains used in each type of operative procedure are outlined in detail.

Chapters 15-26 present in an interesting and concise manner the diseases, surgical treatment and nursing care of each system of the human body; namely, glandular, respiratory, alimentary, genito-urinary, vascular, nervous, and gynecological. The chapter on orthopedic surgery is written by Dr. T. P. Brookes and includes the care of fractures as well as all forms of orthopedic surgery. Dr. H. S. Crossen has compiled the chapter on Gynecological Survey and Dr. E. A. Graham contributed some very helpful material on chest surgery while Dr. Sachs has likewise contributed to neurologic surgery.

The remainder of the book presents special ward procedures such as Hypodermoclysis, Lumbar Puncture, Tracheotomy, etc., Surgical diets, the reason for and preparation of them. A most illuminating chapter on Medicological aspects concludes the book. The glossary is an invaluable explanatory aid to the surgical phraseology of the book and the 233 illustrations are an indispensable teaching aid. The theory and practice of surgical nursing is well correlated in this wealth of material that is an inspiration as well as instruction for the student nurse.

H. E. Arnold, R.N.

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CLINICAL ENDOCRINOLOGY

Samuel A. Loewenberg, M.D., F.A.C.P.
Clinical Professor of Medicine
Jefferson Medical College, Philadelphia

Pp. 825 194 Illustrations 37 Charts and Tables
Philadelphia The F. A. Davis Company 1937

The author presents in this volume of eight hundred odd pages, a well systematized survey of the field of Endocrinology up to the present time. He seems to have avoided the pitfall of over-enthusiasm exhibited by so many of his endocrinological confreres and carefully points out the unknown and the doubtful.

The beginnings of Endocrinology are shrouded in uncertainty and its progress is not unlike a relapsing fever, marked by exacerbations and remissions. The entire subject was hazy and uncertain until recently, when the combined work of the experimental physiologist, the pathologist, the biochemist, and the careful clinician place Endocrinology on the footing it now holds. While much has been learned from these ardent workers, much still remains unknown — Endocrinology, as we now understand it, is practically a new science, and yet the literature on this subject is so vast and voluminous that only a comparatively few students and practicing physicians may have the time, patience and the general ability to familiarize themselves with all this literature and to crystallize it into a useful and readily applicable clinical subject.

Unlike many other medical writers, Dr. Loewenburg gives not only a general historical summary of his subject but begins the discussion of each gland with an historical

resume from the dawn of medical knowledge regarding this gland. In each case, this is followed by sections on both the gross and histologic anatomy discussed in considerable detail. Following this introduction he presents the physiology, i.e., hormone activity of the gland, in detail, before passing on to the pathological conditions.

Unlike many writers, he is not afraid to mention specifically, preparations which are on the market, discussing the differences between them; their potencies, and the possible variations in therapeutic effect. The inclusion of the specific trade names of many preparations will, no doubt, be a feature appealing to the many who have difficulty in keeping track of the innumerable products of the pharmaceutical houses.

For those who wish to delve more deeply into the subject, the author provides lengthy bibliographies at the end of each chapter; that for the pituitary gland alone containing no less than 178 references. While the chapter on poly-glandular endocrinopathies may seem to slight this subject, many of them are in reality considered elsewhere in the text when discussing the interrelation between the various endocrine bodies. A final chapter is devoted to "Significance of Laboratory Findings", together with tables of normals which, undoubtedly, will be appreciated by many as a source of handy reference.

The discussion of various pathological conditions is on the whole well organized and grouped in a logical arrangement. All types of hyperactivity are discussed as a group and individually, to be followed by those conditions characterized by a hypoactivity of the gland. The differential diagnosis is considered in each case in some detail. Treatment is discussed perhaps too briefly but here again the author may be exhibiting a degree of caution so often found lacking in the enthusiastic endocrinologist. On the whole, a well organized, instructive, up-to-date book, thoroughly covering the ground.

C. W. Stephenson

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DISEASES OF THE NERVOUS SYSTEM IN INFANCY, CHILDHOOD AND ADOLESCENCE

Frank R. Ford, M.D.
Associate Professor of Neurology
The Johns Hopkins University

Pp. 935 111 Illustrations $8.50
Springfield, Ill. Charles C. Thomas 1937

The review of a nearly 1,000 page volume would seem a formidable task were it not for the simplicity, clarity, and orderliness of Dr. Ford's Diseases of The Nervous System in Infancy Childhood and Adolescence.

The subject matter of this treatise and its construction are such that it must become a standard work, not only for the specialties of pediatrics and neurology, but also for all branches of medicine.

The chapter plan is layed out in a concise, though none the less complete form, making individual sub-headings easily available for quick reference. The discussion of etiology is pertinent to the newer findings and the diagnosis of various abnormal states is clear and readily understandable by those readers who may have found neurology a bug-a-boo because of its mentally unpicturable anatomical and pathological descriptions.

The first chapter on the Examination of the Nervous system is worthy of commendation owing to the valuable tables and the clear cut description of the technique of special tests many of which are unfamiliar to the non-specialist or are usually difficult to find all in one volume. This chapter makes the second on the Clinical Aspects of the Nervous System much more comprehensible. Clinical syndromes are described in consideration of anatomical and physiological facts which are basically so invaluable in obtaining a clear conception, a truer mental picture of abnormal neurological states. Data on roentgenography, the importance of encephalography, its indications and limitations, are most up to date.

The description of Prenatal Diseases in chapter three is accompanied by excellent illustrations and the nomenclature of congenital defects is most helpful. It is rightfully followed by Heredo-Familial and Degenerative Diseases and this in turn by a study of Infections and Parasitic Invasions of the Nervous System. The latter subject is treated in an enlightening manner. The common encyphalitic type of complication with exanthemata has heretofore occupied too little space in medical treatises. Brain abscesses and their localization, the neuritides, etc., are discussed in the light of latest investigations.

The sixth chapter shows the great strides that have been made in very recent years in our knowledge of the etiology and treatment of Toxic and Metabolic Disorders. Syndromes due to poisoning by metals, gases and foods; paralysis due to food deficiencies; endocrine deficiencies, some well known, as cretinism, some lesser known as in case of parathyroud diseases, calcium disorders, etc., are classically described.

The chapters on Vascular Lesions and Circulatory Disorders of the Nervous System, and the one on Neoplasms and Related Conditions would seem to be of distinct value for purposes of differential diagnosis with conditions simulating such pathological states.

The last ten years have probably witnessed a diminution in some of the physical traumata of infancy as the birth palsies (eliminated by Cesarean operations) thoroughly pictured and in table form in the section on Injuries by Physical Agents, but an increase in trauma to the child and adolescent in this period of increasing speed and out manner of living has created a demand for better diagnostic criteria. The author leaves nothing to be desired in his approach to this subject. The importance of late complications of head trauma is discussed with authoritative data.

Chapter ten on Epilepsies and Paroxysmal Disorders appeals to the reviewer not only from the viewpoint of the description of various types of "fits" and "convulsions," but it seems to clarify the confusion which has prevailed over the term epilepsy. Unfortunately too many victims of "spells" have been stigmatized as being epileptic where attacks have been due to other forms of spasmosis. The author has combed a most excellent bibliography relative to "constitutional" and "precipitating" factors in paroxysmal disorders, including narcolepsy and migrain. There is an element of conservatism in the author's suggestions

for treatment of these disorders. This is undoubtedly commendable in a volume of this type in a period when bio-chemistry is so rapidly changing one's conception of etiology.

The obscure diseases of the autonomic system and of muscles are presented with complete bibliography and proper nomenclature.

The final chapter on Syndrome and Symptom Groups should prove as popular as any for the general reader and a concise ready reference for the pediatrician and neurologist.

The bibliographies are conveniently placed at the end of sub-divisions in each chapter, the list is not too long, includes the leading authorities of the day and is for the most part written in English. The illustrations are new and original and sufficiently numerous.

Dr. Ford has created a volume which will be found invaluable to the student, the specialist, and the general practitioner. He has brought together and analyzed all available information concerning his subject matter. The formal classification of pathological anatomy, diagnosis, prognosis, and established methods of treatment enable the reader to obtain rapidly a complete picture of any condition for which he seeks a solution.

George A. Gosselin

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HEART FAILURE

Arthur M. Fishberg, M.D.
Associate in Medicine
Mount Sinai Hospital, New York City

788 Pages, Cloth — $8.50
Philadelphia, Pa. Lea & Febiger 1937

The flood of literature on cardiovascular diseases continues awesome in both content and extent. Much of it, now impounded in some of the medical volumes intended for the practitioner, carries not only instructive facts but also many theories too nebulous to arrest attention.

To cull the useful from the flood and give it correct setting and value is a task which this author achieves in part, to a surprising degree, in a book both academic and practical, with each of these aspects sufficiently separated to make for easy selection.

The attempt made by the author to elucidate the development of subjective and objective signs of heart failure is worthy of commendation even though it may occasionally leave the reader more or less fog-bound. At least a goodly part reveals advances that do precisely what is stated in the preface, namely, "They enable the physician to introduce a larger element of 'quantitative' thinking in the interpretation of the clinical picture and the treatment of the patient."

The first chapter is devoted to the dynamics of the circulation; and in view of the recondite nature of the problems involved, the subject matter is skillfully treated. The succeeding eight chapters, dealing with the pathogenesis of the symptoms and signs of lung complications, are unduly long.

Their value is not enhanced by including here those references to experiments either inconclusive or at best barely suggestive. Illustrative of this are eighteen pages of chapter eight which largely, "serve to indicate the complexity of the problems of cardiac dyspnea and the fragmentary state of present knowledge."

The effects of cardiac failure on the kidneys, liver, lungs, and the central nervous system receive due attention, with the clinical manifestations well-drawn. But the book is perhaps at its best when it takes up the diseases of the heart. Here the clinical pervades the context to give practical aid to the physician. The electrocardiograph and other laboratory adjuncts are given their importance without over emphasis.

The author exercises excellent judgment in the therapy of heart diseases and, for the most part, adheres closely to the tried and useful. Digitalis is accorded the prominence it deserves.

Altogether the new book is a valuable contribution. It will be appreciated especially by the cardiologist and found highly acceptable to the internist. For the student of heart disease this book abounds in references to interesting studies provocative of further research in a vast field through which but the furrows are drawn. A well chosen bibliography is appropriately disposed at the close of each chapter.

This first edition is voluminous. It is hoped that the second one will be condensed.

A. B. Landry

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THE TECHNIC OF LOCAL ANESTHESIA

Arthur E. Hertzler, M.D., F.A.C.S.
Professor of Surgery, University of Kansas

Pp. 284 6th Edition $5.00
St. Louis C. V. Mosby Co. 1937

In the preface the author states that once a book has survived five editions, the author has no need for apologizing for his work. To do so would be to reflect on the judgment of those that had acquired it. This work is no exception to that rule. The material for this edition has been revised in part, and some has been added. Agents and methods of their administration are described in a lucid manner and numerous illustrations amplify the descriptions very well. Description of infiltrative techniques for different procedures is stressed. The book is written from a point of view of the anesthetist-surgeon and some information regarding surgical problems is included.

The chapter on spinal anesthesia originally written by Dr. Arch E. Spellman has been revised by Dr. Irene A. Koeneke. Discussion is limited to the method where novocain crystals dissolved in spinal fluid are used. The chapter on Intravenous Anesthesia written by Dr. Raymond F. Gard, covers the use of sodium amytal.

This book contains information of real value to both surgeons and anesthetists. One may disagree with some of the statements that are made but one must respect the opinions of an author possessing such erudition and wisdom, gained through wide experience.

Ralph M. Tovell

List of Registrations at the 13th Connecticut Clinical Congress

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Edward J. Blumenthal
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H. Steudel

BERLIN
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BLOOMFIELD
Maurice B. Thompson

BRANFORD
Daba L. Blanchard
Charles W. Gaylord

BRIDGEPORT
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Joseph Beaudry
A. Bernstein
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Fessenden L. Day
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Joseph H. Howard
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W. H. Treat

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Norman H. Gardner

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I. S. Geetter
N. W. Loud

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Mendel Volkenheim

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William B. Terhune

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E. Irene Boardman
Zelly A. Bonoff
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Warren T. Brown
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J. Francis MacNish
Max Mailhouse
Carter L. Marshall
H. M. Marvin
Ralph A. McDonnell
Ralph E. McDonnell
Anthony J. Mendillo
John C. Mendillo
Joseph Mignone
Walter Miles
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Luther K. Musselman
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Ralph W. Nichols
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Louis O'Brasky
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A. Lewis Shure
C. Seaver Smith
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